

4089

Ser Lys Glu Gln Val Ala Asn Ser Ala Phe Val Glu Arg Val Arg Lys  
 115 120 125  
 Arg Gly Phe Glu Val Val Tyr Met Thr Glu Pro Ile Asp Glu Tyr Cys  
 130 135 140  
 Val Gln Gln Leu Lys Glu Phe Asp Gly Lys Ser Leu Val Ser Val Thr  
 145 150 155 160  
 Lys Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu Lys Lys Lys Met  
 165 170 175  
 Glu Glu Ser Lys Ala Lys Phe Glu Asn Leu Cys Lys Leu Met Lys Glu  
 180 185 190  
 Ile Leu Asp Lys Lys Val Glu Lys Val Thr Ile Ser Asn Arg Leu Val  
 195 200 205  
 Ser Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala Asn  
 210 215 220  
 Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr Met  
 225 230 235 240  
 Gly Tyr Met Met Ala Lys Lys His Leu Glu Ile Asn Pro Asp His Pro  
 245 250 255  
 Ile Val Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Lys Asn Asp Lys  
 260 265 270  
 Ala Val Lys Asp Leu Val Val Leu Leu Phe Glu Thr Ala Leu Leu Ser  
 275 280 285  
 Ser Gly Phe Ser Leu Glu Asp Pro Gln Thr His Ser Asn Arg Ile Tyr  
 290 295 300  
 Arg Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Glu Val Ala Ala  
 305 310 315 320  
 Glu Glu Pro Asn Ala Ala Val Pro Asp Glu Ile Pro Pro Leu Glu Gly  
 325 330 335  
 Asp Glu Asp Ala Ser Arg Met Glu Glu Val Asp  
 340 345

&lt;210&gt; 4522

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4090

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4522

Leu	Phe	Leu	Xaa	Gly	Gly	Lys	Asp	Pro	Leu	Val	Pro	Xaa	Xaa	Lys	Gln
1				5					10					15	

Leu	Gly	Lys	Asp	Leu	Ala	Leu	Tyr	Ile	Tyr	Trp	Met	Val	Leu	Met	Ala
			20					25					30		

Lys	Leu	Leu	Asn	Ser	Leu	Ile	Ser	His	Val	Ser	Ala	Ser	Arg	Ile	Ser
			35				40					45			

Asp	Arg	Asn	Glu	Thr	His	Leu	Lys	Met	Arg	Leu	Thr	Trp	Arg	Phe	Phe
	50					55					60				

Phe	Pro	Asn	Leu	Ser	Tyr	Leu	Asn	Trp	Lys	Asn	Asn	Gln	Leu	Ile	Leu
65					70					75					80

Cys

&lt;210&gt; 4523

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4523

Thr	Gln	Val	Met	Gly	Leu	Cys	Cys	Thr	Asp	Tyr	Phe	Val	Val	His	Val
1				5					10					15	

Leu	Ser	Leu	Val	Pro	Asn	Ser	Tyr	Phe	Phe	Cys	Ser	Ser	Pro	Ser	Ser
			20					25					30		

Tyr	Pro	Leu	Pro	Ser	Ser	Trp	Pro	Asn	Val	Tyr	Cys	Ser	Leu	Leu	Cys
		35					40					45			

4091

Asn Asn His Ser Asn Leu Cys Phe  
 50 55

&lt;210&gt; 4524

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (188)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (191)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (193)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4524

Gly Ala Gly Ala Ala Glu Pro Gly Pro Ala Ala Glu Leu Glu Ala Leu  
 1 5 10 15

Leu Ser Ser Lys Asp Asp Val Gly Lys Ser Val His Glu Leu Glu Arg  
 20 25 30

Ala Cys Arg Val Ala Glu Gln Ala Ala Asn Asp Leu Arg Ala Gln Val  
 35 40 45

Thr Glu Leu Glu Asp Glu Leu Thr Ala Ala Glu Asp Ala Lys Leu Arg  
 50 55 60

Leu Glu Val Thr Val Gln Ala Leu Lys Thr Gln His Glu Arg Asp Leu  
 65 70 75 80

Gln Gly Arg Asp Glu Ala Gly Glu Glu Arg Arg Arg Gln Leu Ala Lys  
 85 90 95

Gln Leu Arg Asp Ala Glu Val Glu Arg Asp Glu Glu Arg Lys Gln Arg  
 100 105 110

Thr Leu Ala Val Ala Ala Arg Lys Lys Leu Glu Gly Glu Leu Glu Glu  
 115 120 125

## 4092

Leu Lys Ala Gln Met Ala Ser Ala Gly Gln Gly Lys Glu Glu Ala Val  
130 135 140

Lys Gln Leu Arg Lys Met Gln Ala Gln Met Lys Glu Leu Trp Arg Glu  
145 150 155 160

Val Glu Glu Thr Arg Thr Phe Arg Glu Glu Ile Phe Ser Gln Asn Arg  
165 170 175

Glu Ser Glu Lys Arg Leu Lys Gly Leu Lys Leu Xaa Cys Cys Xaa Cys  
180 185 190

Xaa

<210> 4525

<211> 218

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (180)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (207)

<223> Xaa equals any of the naturally occurring L-amino acids



4093

&lt;400&gt; 4525

Ala Ser Ala Ser Ile Cys Ser Gly Ile Lys Tyr Ala Phe Gln Val Ile  
 1 5 10 15

Gly Glu Leu His Ser Gln Leu Asp Gly Ser Glu Val Leu Leu Leu Thr  
 20 25 30

Asp Gly Glu Asp Asn Thr Ala Ser Ser Cys Ile Asp Glu Val Lys Gln  
 35 40 45

Ser Gly Ala Ile Val His Phe Ile Ala Leu Gly Arg Ala Ala Asp Glu  
 50 55 60

Ala Val Ile Glu Met Ser Lys Ile Thr Gly Gly Ser His Phe Tyr Val  
 65 70 75 80

Ser Asp Glu Ala Gln Asn Asn Gly Leu Ile Asp Ala Phe Gly Ala Xaa  
 85 90 95

Thr Ser Gly Asn Thr Asp Leu Ser Xaa Lys Ser Leu Gln Leu Glu Ser  
 100 105 110

Lys Gly Leu Thr Leu Asn Ser Asn Ala Trp Met Asn Asp Thr Val Ile  
 115 120 125

Ile Asp Ser Thr Val Gly Lys Asp Thr Phe Phe Leu Ile Thr Trp Asn  
 130 135 140

Ser Leu Pro Pro Ser Ile Ser Leu Trp Asp Pro Ser Gly Thr Ile Met  
 145 150 155 160

Glu Asn Phe Thr Val Asp Ala Thr Ser Lys Met Ala Tyr Leu Ser Ile  
 165 170 175

Pro Gly Thr Xaa Lys Val Gly Thr Trp Ala Tyr Asn Leu Xaa Ala Lys  
 180 185 190

Ala Xaa Pro Glu Thr Leu Thr Ile Thr Val Thr Ser Arg Ala Xaa Lys  
 195 200 205

Phe Phe Cys Ala Ser Asn His Ser Glu Cys  
 210 215

&lt;210&gt; 4526

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4094

&lt;400&gt; 4526

Gly Ala Phe Leu Met Ala Thr Ala Ala Trp Leu Thr Thr Val Phe Lys  
 1 5 10 15

Gln Pro Gly Cys Ala Pro Glu Leu His Trp Ala Ser Phe His Asn Tyr  
 20 25 30

Gly Ser Val Ser Ile Thr Leu Ile Ser Glu Cys Gly Arg His Leu Asn  
 35 40 45

Lys Asn His Glu Ser His Phe Thr Asn Gln Asp Thr Gln Asp Val Arg  
 50 55 60

Leu Ser Asp Leu Ser Tyr Gln Gly His Lys Ala Ser  
 65 70 75

&lt;210&gt; 4527

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4527

Cys Phe Ser Ser Ser Gly Phe Thr Cys His Asp His Gly Ala Thr Val  
 1 5 10 15

Leu Gln Tyr Ala Pro Lys Gln Gln Leu Leu Ile Ser Gly Gly Arg Lys  
 20 25 30

Arg His Val Cys Ile Phe Asp Ile Xaa Gln Arg Gln Leu Ile His Thr  
 35 40 45

Phe Gln Ala His Asp Ser Ala Ile Lys Ala Leu Ala Leu Asp Pro Tyr  
 50 55 60

Glu Glu Tyr Phe Thr Thr Gly Ser Ala Glu Gly Asn Ile Lys Val Trp  
 65 70 75 80

Arg Leu Thr Gly His Gly Leu Ile His Ser Phe Lys Ser Glu His Ala  
 85 90 95

Lys Gln Ser Ile Phe Arg Asn Ile Gly Ala Gly Val Met Gln Ile Asp  
 100 105 110

Ile Ile Gln Gly Asn Arg Leu Phe Ser Cys Gly Ala Asp Gly Thr Leu

## 4095

115	120	125
Lys Thr Arg Val Leu Pro Asn Ala Phe Asn Ile Pro Asn Arg Ile Leu		
130	135	140
Asp Ile Leu		
145		
<210> 4528		
<211> 423		
<212> PRT		
<213> Homo sapiens		
<400> 4528		
Pro Glu Asn Asn Gln Ile Glu Thr Met Glu Asp Leu Cys Val Ala Asn		
1	5	10 15
Thr Leu Phe Ala Leu Asn Leu Phe Lys His Leu Ala Lys Ala Ser Pro		
20	25	30
Thr Gln Asn Leu Phe Leu Ser Pro Trp Ser Ile Ser Ser Thr Met Ala		
35	40	45
Met Val Tyr Met Gly Ser Arg Gly Ser Thr Glu Asp Gln Met Ala Lys		
50	55	60
Val Leu Gln Phe Asn Glu Val Gly Ala Asn Ala Val Thr Pro Met Thr		
65	70	75 80
Pro Glu Asn Phe Thr Ser Cys Gly Phe Met Gln Gln Ile Gln Lys Gly		
85	90	95
Ser Tyr Pro Asp Ala Ile Leu Gln Ala Gln Ala Ala Asp Lys Ile His		
100	105	110
Ser Ser Phe Arg Ser Leu Ser Ser Ala Ile Asn Ala Ser Thr Gly Asn		
115	120	125
Tyr Leu Leu Glu Ser Val Asn Lys Leu Phe Gly Glu Lys Ser Ala Ser		
130	135	140
Phe Arg Glu Glu Tyr Ile Arg Leu Cys Gln Lys Tyr Tyr Ser Ser Glu		
145	150	155 160
Pro Gln Ala Val Asp Phe Leu Glu Cys Ala Glu Glu Ala Arg Lys Lys		
165	170	175
Ile Asn Ser Trp Val Lys Thr Gln Thr Lys Gly Lys Ile Pro Asn Leu		
180	185	190

4096

Leu Pro Glu Gly Ser Val Asp Gly Asp Thr Arg Met Val Leu Val Asn  
 195 200 205  
 Ala Val Tyr Phe Lys Gly Lys Trp Lys Thr Pro Phe Glu Lys Lys Leu  
 210 215 220  
 Asn Gly Leu Tyr Pro Phe Arg Val Asn Ser Ala Gln Arg Thr Pro Val  
 225 230 235 240  
 Gln Met Met Tyr Leu Arg Glu Lys Leu Asn Ile Gly Tyr Ile Glu Asp  
 245 250 255  
 Leu Lys Ala Gln Ile Leu Glu Leu Pro Tyr Ala Gly Asp Val Ser Met  
 260 265 270  
 Phe Leu Leu Leu Pro Asp Glu Ile Ala Asp Val Ser Thr Gly Leu Glu  
 275 280 285  
 Leu Leu Glu Ser Glu Ile Thr Tyr Asp Lys Leu Asn Lys Trp Thr Ser  
 290 295 300  
 Lys Asp Lys Met Ala Glu Asp Glu Val Glu Val Tyr Ile Pro Gln Phe  
 305 310 315 320  
 Lys Leu Glu Glu His Tyr Glu Leu Arg Ser Ile Leu Arg Ser Met Gly  
 325 330 335  
 Met Glu Asp Ala Phe Asn Lys Gly Arg Ala Asn Phe Ser Gly Met Ser  
 340 345 350  
 Glu Arg Asn Asp Leu Phe Leu Ser Glu Val Phe His Gln Ala Met Val  
 355 360 365  
 Asp Val Asn Glu Glu Gly Thr Glu Ala Ala Ala Gly Thr Gly Gly Val  
 370 375 380  
 Met Thr Gly Arg Thr Gly His Gly Gly Pro Gln Phe Val Ala Asp His  
 385 390 395 400  
 Pro Phe Leu Phe Leu Ile Met His Lys Ile Thr Asn Cys Ile Leu Phe  
 405 410 415  
 Phe Gly Arg Phe Ser Ser Pro  
 420

&lt;210&gt; 4529

&lt;211&gt; 86

&lt;212&gt; PRT

4097

&lt;213&gt; Homo sapiens

&lt;400&gt; 4529

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Thr Met Glu Gly Cys Arg Pro Thr Ser Leu Ile Thr Ile Glu Ile His
  1              5              10              15

Val Thr Ile Glu Pro Trp Lys Cys Ser Leu Ser Lys Leu Arg Cys Ala
              20              25              30

Val Ser Ile Lys Tyr Ile Pro Asp Phe Lys Asp Val Pro Lys Asn Val
              35              40              45

Asn Tyr Leu Asn Phe Tyr Ile Gly Glu Ile Asn Met Ser Trp Tyr Ser
              50              55              60

Gly Leu Asn Lys Thr Ile Leu Ala Phe Leu Ser Leu Phe Phe Cys Lys
              65              70              75              80

Lys Ile Lys Asn Cys Thr
              85

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&lt;210&gt; 4530

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4530

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Gly Leu Arg Arg Leu Asp Ser Ala Ser Gly Thr Val Tyr Thr Ala Met
  1              5              10              15

Asp Val Ala Thr Gly Gln Glu Val Ala Ile Lys Gln Met Asn Leu Gln
              20              25              30

Gln Gln Pro Lys Lys Glu Leu Ile Ile Asn Glu Ile Leu Val Met Arg
              35              40              45

Glu Asn Lys Asn Pro Asn Ile Val Asn Tyr Leu Asp Ser Tyr Leu Val
              50              55              60

Gly Asp Glu Leu Trp Val Val Met Glu Tyr Leu Ala Gly Gly Ser Leu
              65              70              75              80

Thr Asp Val Val Thr Glu Thr Cys Met Asp Glu Gly Gln Ile Ala Ala
              85              90              95

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## 4098

Val Cys Arg Glu Xaa Leu Gln Ala Leu Glu Phe Leu His Ser Asn Gln  
                   100                  105                  110  
 Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Met Val Gly Thr Pro Tyr  
                   115                  120                  125  
 Trp Met Ala Pro Glu Val Val Thr Arg Lys Ala Tyr Gly Pro Lys Val  
                   130                  135                  140  
 Asp Ile Trp Ser Leu Gly Ile Met Ala Ile Glu Met Ile Glu Gly Glu  
 145                  150                  155                  160  
 Pro Pro Tyr Leu Asn Glu Asn Pro Leu Arg Ala Leu Tyr Leu Ile Ala  
                   165                  170                  175  
 Thr Asn Gly Thr Pro Glu Leu Gln Asn Pro Glu Lys Leu Ser Ala Ile  
                   180                  185                  190  
 Phe Arg Asp Phe Leu Asn Arg Cys Leu Glu Met Asp Val Glu Lys Arg  
                   195                  200                  205  
 Gly Ser Ala Lys Glu Leu Leu Gln His Gln Phe Leu Lys Ile Ala Lys  
                   210                  215                  220  
 Pro Leu Ser Ser Leu Thr Pro Leu Ile Ala Ala Ala Lys Glu Ala Thr  
 225                  230                  235                  240  
 Lys Asn Asn His

&lt;210&gt; 4531

&lt;211&gt; 624

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (188)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (192)

## 4099

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4531

His	Xaa	His	Ser	Phe	Ser	Ser	Gly	Tyr	Val	Glu	Met	Glu	Phe	Glu	Phe	1	5	10	15
Asp	Arg	Leu	Arg	Ala	Phe	Gln	Ala	Met	Gln	Val	His	Cys	Asn	Asn	Met	20	25	30	
His	Thr	Leu	Gly	Ala	Arg	Leu	Pro	Gly	Gly	Val	Glu	Cys	Arg	Phe	Arg	35	40	45	
Arg	Gly	Pro	Ala	Met	Ala	Trp	Glu	Gly	Glu	Pro	Met	Arg	His	Asn	Leu	50	55	60	
Gly	Gly	Asn	Leu	Gly	Asp	Pro	Arg	Ala	Arg	Ala	Val	Ser	Val	Pro	Leu	65	70	75	80
Gly	Gly	Arg	Val	Ala	Arg	Phe	Leu	Gln	Cys	Arg	Phe	Leu	Phe	Ala	Gly	85	90	95	
Pro	Trp	Leu	Leu	Phe	Ser	Glu	Ile	Ser	Phe	Ile	Ser	Asp	Val	Val	Asn	100	105	110	
Asn	Ser	Ser	Pro	Ala	Leu	Gly	Gly	Thr	Phe	Pro	Pro	Ala	Pro	Trp	Trp	115	120	125	
Pro	Pro	Gly	Pro	Pro	Pro	Thr	Asn	Phe	Ser	Ser	Leu	Glu	Leu	Glu	Pro	130	135	140	
Arg	Gly	Gln	Gln	Pro	Val	Ala	Lys	Ala	Glu	Gly	Ser	Pro	Thr	Ala	Ile	145	150	155	160
Leu	Ile	Gly	Cys	Leu	Val	Ala	Ile	Ile	Leu	Leu	Leu	Leu	Leu	Ile	Ile	165	170	175	
Ala	Leu	Met	Leu	Trp	Arg	Leu	His	Trp	Arg	Arg	Xaa	Leu	Ser	Lys	Xaa	180	185	190	
Glu	Arg	Arg	Val	Leu	Glu	Glu	Glu	Leu	Thr	Val	His	Leu	Ser	Val	Pro	195	200	205	
Gly	Asp	Thr	Ile	Leu	Ile	Asn	Asn	Arg	Pro	Gly	Pro	Arg	Glu	Pro	Pro	210	215	220	
Pro	Tyr	Gln	Glu	Pro	Arg	Pro	Arg	Gly	Asn	Pro	Pro	His	Ser	Ala	Pro	225	230	235	240
Cys	Val	Pro	Asn	Gly	Ser	Ala	Leu	Leu	Leu	Ser	Asn	Pro	Ala	Tyr	Arg	245	250	255	

## 4100

Leu Leu Leu Ala Thr Tyr Ala Arg Pro Pro Arg Gly Pro Gly Pro Pro  
 260 265 270  
 Thr Pro Ala Trp Ala Lys Pro Thr Asn Thr Gln Ala Tyr Ser Gly Asp  
 275 280 285  
 Tyr Met Glu Pro Glu Lys Pro Gly Ala Pro Leu Leu Pro Pro Pro Pro  
 290 295 300  
 Gln Asn Ser Val Pro His Tyr Ala Glu Ala Asp Ile Val Thr Leu Gln  
 305 310 315 320  
 Gly Val Thr Gly Gly Asn Thr Tyr Ala Val Pro Ala Leu Pro Pro Gly  
 325 330 335  
 Ala Val Gly Asp Gly Pro Pro Arg Val Asp Phe Pro Arg Ser Arg Leu  
 340 345 350  
 Arg Phe Lys Glu Lys Leu Gly Glu Gly Gln Phe Gly Glu Val His Leu  
 355 360 365  
 Cys Glu Val Asp Ser Pro Gln Asp Leu Val Ser Leu Asp Phe Pro Leu  
 370 375 380  
 Asn Val Arg Lys Gly His Pro Leu Leu Val Ala Val Lys Ile Leu Arg  
 385 390 395 400  
 Pro Asp Ala Thr Lys Asn Ala Arg Asn Asp Phe Leu Lys Glu Val Lys  
 405 410 415  
 Ile Met Ser Arg Leu Lys Asp Pro Asn Ile Ile Arg Leu Leu Gly Val  
 420 425 430  
 Cys Val Gln Asp Asp Pro Leu Cys Met Ile Thr Asp Tyr Met Glu Asn  
 435 440 445  
 Gly Asp Leu Asn Gln Phe Leu Ser Ala His Gln Leu Glu Asp Lys Ala  
 450 455 460  
 Ala Glu Gly Ala Pro Gly Asp Gly Gln Ala Ala Gln Gly Pro Thr Ile  
 465 470 475 480  
 Ser Tyr Pro Met Leu Leu His Val Ala Ala Gln Ile Ala Ser Gly Met  
 485 490 495  
 Arg Tyr Leu Ala Thr Leu Asn Phe Val His Arg Asp Leu Ala Thr Arg  
 500 505 510  
 Asn Cys Leu Val Gly Glu Asn Phe Thr Ile Lys Ile Ala Asp Phe Gly  
 515 520 525



## 4101

Met Ser Arg Asn Leu Tyr Ala Gly Asp Tyr Tyr Arg Val Gln Gly Arg  
 530 535 540

Ala Val Leu Pro Ile Arg Trp Met Ala Trp Glu Cys Ile Leu Met Gly  
 545 550 555 560

Lys Phe Thr Thr Ala Ser Asp Val Trp Ala Phe Gly Val Thr Leu Trp  
 565 570 575

Glu Val Leu Met Leu Cys Arg Ala Gln Pro Phe Gly Gln Leu Thr Asp  
 580 585 590

Glu Gln Val Ile Glu Asn Ala Gly Glu Phe Phe Arg Asp Gln Gly Arg  
 595 600 605

Gln Val Tyr Leu Ser Arg Pro Pro Ala Cys Pro Gln Ala Tyr Met Ser  
 610 615 620

<210> 4532

<211> 202

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (201)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4532

Xaa Gln Arg Trp Gly Gly Met Glu Ala Thr Ala Arg Lys Pro Gly Gln  
 1 5 10 15

Gln Trp Arg Ser Ser Val Ser Pro Ser Ser Gly Leu Glu Pro Ala Glu  
 20 25 30

Thr Ser Ala Gly Val Ser Ser Gln Gly Arg Trp Val Cys Gly Val Ser  
 35 40 45

Arg Gly Ala Val Pro Ala Arg Val Lys Arg Lys Leu Pro Arg Val Leu  
 50 55 60

## 4102

Cys Thr Pro Thr Arg Arg Arg Pro Ser Pro Arg Gly Pro Ser Gln Pro  
 65 70 75 80  
 Asp Ala Arg Val Leu Cys Val Ser Asn Thr Arg Ser Val Pro Ala Pro  
 85 90 95  
 Arg Arg Pro Arg Cys Pro Gln Leu Glu Glu Asp Ile Ala Ala Lys Glu  
 100 105 110  
 Lys Leu Leu Arg Val Ser Glu Asp Glu Arg Asp Arg Val Leu Glu Glu  
 115 120 125  
 Leu His Lys Ala Glu Asp Ser Leu Leu Ala Ala Glu Glu Ala Ala Pro  
 130 135 140  
 Arg Leu Lys Pro Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val  
 145 150 155 160  
 Glu Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln  
 165 170 175  
 Lys Leu Glu Glu Ala Asp Lys Ala Ala Asp Glu Ser Glu Arg Gly Met  
 180 185 190  
 Lys Val Ile Glu Ser Arg Ala Gln Xaa Gly  
 195 200

&lt;210&gt; 4533

&lt;211&gt; 397

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4533

Pro Thr Arg Pro Ser Ser Val Ser Arg Arg Asp Lys Ser Lys Gln Val  
 1 5 10 15  
 Trp Glu Ala Val Leu Leu Pro Leu Ser Leu Leu Ser Met Met Asp Leu  
 20 25 30  
 Arg Asn Thr Pro Ala Lys Ser Leu Asp Lys Phe Ile Glu Asp Tyr Leu  
 35 40 45  
 Leu Pro Asp Thr Cys Phe Arg Met Gln Ile Asn His Ala Ile Asp Ile  
 50 55 60  
 Ile Cys Gly Phe Leu Lys Glu Arg Cys Phe Arg Gly Ser Ser Tyr Pro  
 65 70 75 80  
 Val Cys Val Ser Lys Val Val Lys Gly Gly Ser Ser Gly Lys Gly Thr

## 4103

					85						90						95
Thr	Leu	Arg	Gly	Arg	Ser	Asp	Ala	Asp	Leu	Val	Val	Phe	Leu	Ser	Pro		
			100					105					110				
Leu	Thr	Thr	Phe	Gln	Asp	Gln	Leu	Asn	Arg	Arg	Gly	Glu	Phe	Ile	Gln		
		115					120					125					
Glu	Ile	Arg	Arg	Gln	Leu	Glu	Ala	Cys	Gln	Arg	Glu	Arg	Ala	Phe	Ser		
	130					135					140						
Val	Lys	Phe	Glu	Val	Gln	Ala	Pro	Arg	Trp	Gly	Asn	Pro	Arg	Ala	Leu		
145					150					155					160		
Ser	Phe	Val	Leu	Ser	Ser	Leu	Gln	Leu	Gly	Glu	Gly	Val	Glu	Phe	Asp		
				165					170					175			
Val	Leu	Pro	Ala	Phe	Asp	Ala	Leu	Asp	Phe	Ala	Arg	Thr	Gly	Gln	Leu		
			180					185					190				
Thr	Gly	Gly	Tyr	Lys	Pro	Asn	Pro	Gln	Ile	Tyr	Val	Lys	Leu	Ile	Glu		
		195					200					205					
Glu	Cys	Thr	Asp	Leu	Gln	Lys	Glu	Gly	Glu	Phe	Ser	Thr	Cys	Phe	Thr		
	210					215					220						
Glu	Leu	Gln	Arg	Asp	Phe	Leu	Lys	Gln	Arg	Pro	Thr	Lys	Leu	Lys	Ser		
225					230					235					240		
Leu	Ile	Arg	Leu	Val	Lys	His	Trp	Tyr	Gln	Asn	Cys	Lys	Lys	Lys	Leu		
				245					250					255			
Gly	Lys	Leu	Pro	Pro	Gln	Tyr	Ala	Leu	Glu	Leu	Leu	Thr	Val	Tyr	Ala		
			260					265					270				
Trp	Glu	Arg	Gly	Ser	Met	Lys	Thr	His	Phe	Asn	Thr	Ala	Gln	Gly	Phe		
		275					280					285					
Arg	Thr	Val	Leu	Glu	Leu	Val	Ile	Asn	Tyr	Gln	Gln	Leu	Cys	Ile	Tyr		
	290					295					300						
Trp	Thr	Lys	Tyr	Tyr	Asp	Phe	Lys	Asn	Pro	Ile	Ile	Glu	Lys	Tyr	Leu		
305					310					315					320		
Arg	Arg	Gln	Leu	Thr	Lys	Pro	Arg	Pro	Val	Ile	Leu	Asp	Pro	Ala	Asp		
				325					330					335			
Pro	Thr	Gly	Asn	Leu	Gly	Gly	Gly	Asp	Pro	Lys	Gly	Trp	Arg	Gln	Leu		
			340					345					350				
Ala	Gln	Glu	Ala	Glu	Ala	Trp	Leu	Asn	Tyr	Pro	Cys	Phe	Lys	Asn	Trp		

## 4104

355 360 365  
Asp Gly Ser Pro Val Ser Ser Trp Ile Leu Leu Val Arg Pro Pro Ala  
370 375 380  
Ser Ser Leu Pro Phe Ile Pro Ala Pro Leu His Glu Ala  
385 390 395

&lt;210&gt; 4534

&lt;211&gt; 262

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4534

## 4105

Pro His Arg Ile Pro Ser Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr  
 1 5 10 15  
 Gln Gln Leu Xaa Lys Ile Ala Glu Gly Xaa Leu Gln Pro Met Ile Val  
 20 25 30  
 Ser Ala Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys  
 35 40 45  
 Pro Thr Gly Xaa Xaa Lys Xaa Ser Ser Ser Met Ala Asp Gly Asp Asn  
 50 55 60  
 Ser Tyr Xaa Leu Glu Ala Xaa Ile Arg Gln Met Asn Ala Phe His Thr  
 65 70 75 80  
 Val Met Cys Asp Gln Gly Leu Asp Pro Glu Ile Ile Leu Gln Val Phe  
 85 90 95  
 Lys Gln Leu Phe Tyr Met Ile Asn Ala Val Thr Leu Asn Asn Leu Leu  
 100 105 110  
 Leu Arg Lys Asp Val Cys Ser Trp Ser Thr Gly Met Gln Leu Arg Tyr  
 115 120 125  
 Asn Ile Ser Gln Leu Glu Glu Trp Leu Arg Gly Arg Asn Leu His Gln  
 130 135 140  
 Ser Gly Ala Val Gln Thr Met Glu Pro Leu Ile Gln Ala Ala Gln Leu  
 145 150 155 160  
 Leu Gln Leu Lys Lys Lys Thr Gln Glu Asp Ala Glu Ala Ile Cys Ser  
 165 170 175  
 Leu Cys Thr Ser Leu Ser Thr Gln Gln Ile Val Lys Ile Leu Asn Leu  
 180 185 190  
 Tyr Thr Pro Leu Asn Glu Phe Glu Glu Arg Val Thr Val Ala Phe Ile  
 195 200 205  
 Arg Thr Ile Gln Ala Gln Leu Gln Glu Arg Asn Asp Pro Gln Gln Leu  
 210 215 220  
 Leu Leu Asp Ala Lys His Met Phe Pro Val Leu Phe Pro Phe Asn Pro  
 225 230 235 240  
 Ser Ser Leu Thr Met Asp Ser Ile His Ile Pro Ala Cys Leu Asn Leu  
 245 250 255  
 Glu Phe Leu Asn Glu Val  
 260

4106

&lt;210&gt; 4535

&lt;211&gt; 451

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (371)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4535

Gly	Met	Glu	Gly	Ser	Lys	Thr	Ser	Asn	Asn	Ser	Thr	Met	Gln	Val	Ser
1				5				10					15		

Phe	Val	Cys	Gln	Arg	Cys	Ser	Gln	Pro	Leu	Lys	Leu	Asp	Thr	Ser	Phe
		20					25					30			

Lys	Ile	Leu	Asp	Arg	Val	Thr	Ile	Gln	Glu	Leu	Thr	Ala	Pro	Leu	Leu
	35					40					45				

Thr	Thr	Ala	Gln	Ala	Lys	Pro	Gly	Glu	Thr	Gln	Glu	Glu	Glu	Thr	Asn
	50				55					60					

Ser	Gly	Glu	Glu	Pro	Phe	Ile	Glu	Thr	Pro	Arg	Gln	Asp	Gly	Val	Ser
65					70				75					80	

Arg	Arg	Phe	Ile	Pro	Pro	Ala	Arg	Met	Met	Ser	Thr	Glu	Ser	Ala	Asn
			85					90						95	

Ser	Phe	Thr	Leu	Ile	Gly	Glu	Ala	Ser	Asp	Gly	Gly	Thr	Met	Glu	Asn
		100					105					110			

Leu	Ser	Arg	Arg	Leu	Lys	Val	Thr	Gly	Asp	Leu	Phe	Asp	Ile	Met	Ser
	115					120					125				

Gly	Gln	Thr	Asp	Val	Asp	His	Pro	Leu	Cys	Glu	Glu	Cys	Thr	Asp	Thr
	130					135					140				

Leu	Leu	Asp	Gln	Leu	Asp	Thr	Gln	Leu	Asn	Val	Thr	Glu	Asn	Glu	Cys
145				150					155					160	

Gln	Asn	Tyr	Lys	Arg	Cys	Leu	Glu	Ile	Leu	Glu	Gln	Met	Asn	Glu	Asp
			165					170					175		

Asp	Ser	Glu	Gln	Leu	Gln	Met	Glu	Leu	Lys	Glu	Leu	Ala	Leu	Glu	Glu
		180					185					190			

Glu	Arg	Leu	Ile	Gln	Glu	Leu	Glu	Asp	Val	Glu	Lys	Asn	Arg	Lys	Ile
	195					200						205			

## 4107

Val Ala Glu Asn Leu Glu Lys Val Gln Ala Glu Ala Glu Arg Leu Asp  
 210 215 220  
 Gln Glu Glu Ala Gln Tyr Gln Arg Glu Tyr Ser Glu Phe Lys Arg Gln  
 225 230 235 240  
 Gln Leu Glu Leu Asp Asp Glu Leu Lys Ser Val Glu Asn Gln Met Arg  
 245 250 255  
 Tyr Ala Gln Thr Gln Leu Asp Lys Leu Lys Lys Thr Asn Val Phe Asn  
 260 265 270  
 Ala Thr Phe His Ile Trp His Ser Gly Gln Phe Gly Thr Ile Asn Asn  
 275 280 285  
 Phe Arg Leu Gly Arg Leu Pro Ser Val Pro Val Glu Trp Asn Glu Ile  
 290 295 300  
 Asn Ala Ala Trp Gly Gln Thr Val Leu Leu Leu His Ala Leu Ala Asn  
 305 310 315 320  
 Lys Met Gly Leu Lys Phe Gln Arg Tyr Arg Leu Val Pro Tyr Gly Asn  
 325 330 335  
 His Ser Tyr Leu Glu Ser Leu Thr Asp Lys Ser Lys Glu Leu Pro Leu  
 340 345 350  
 Tyr Cys Ser Gly Gly Leu Arg Phe Phe Trp Asp Asn Lys Phe Asp His  
 355 360 365  
 Ala Met Xaa Ala Phe Leu Asp Cys Val Gln Gln Phe Lys Glu Glu Val  
 370 375 380  
 Glu Lys Gly Glu Thr Arg Phe Cys Leu Pro Tyr Arg Met Asp Val Glu  
 385 390 395 400  
 Lys Gly Lys Ile Glu Asp Thr Gly Gly Ser Gly Gly Ser Tyr Ser Ile  
 405 410 415  
 Lys Thr Gln Phe Asn Ser Glu Glu Gln Trp Thr Lys Ala Leu Lys Phe  
 420 425 430  
 Met Leu Thr Asn Leu Lys Trp Gly Leu Ala Trp Val Ser Ser Gln Phe  
 435 440 445  
 Tyr Asn Lys  
 450

## 4108

<210> 4536  
 <211> 35  
 <212> PRT  
 <213> Homo sapiens

<400> 4536  
 Val Tyr Ile Arg Asp Pro Leu Val His Ser Thr Ala Asp Ile Ser Ser  
           1                  5                  10                  15  
 Ile Phe Asn Thr Thr Val Cys Ser Lys Ala Arg Trp Ser Leu Leu Lys  
                   20                  25                  30  
 Leu His Phe  
           35

<210> 4537  
 <211> 201  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (127)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4537  
 Asn Asn Cys Ser Leu Leu Trp Val Leu Leu Ala Gly Phe Arg Leu Gly  
           1                  5                  10                  15  
 Asn Val Val His Ala Ile Gln Ala Thr Glu Gln Ser Ile His Ala Thr  
                   20                  25                  30  
 Asp Leu Val Pro Arg Leu Cys Leu Thr Leu Ala Asn Leu Asn Arg Val  
           35                  40                  45  
 Ile Tyr Phe Ile Cys Asp Thr Ile Leu Trp Val Arg Ser Val Gly Leu  
           50                  55                  60  
 Thr Ser Gly Ile Asn Lys Glu Lys Trp Arg Thr Arg Ala Ala His His  
           65                  70                  75                  80  
 Tyr Tyr Tyr Ser Leu Leu Leu Ser Leu Val Arg Asp Leu Tyr Glu Ile  
                   85                  90                  95  
 Ser Leu Gln Met Lys Arg Val Thr Cys Asp Arg Ala Lys Lys Glu Lys  
           100                  105                  110  
 Ser Ala Ser Gln Asp Pro Leu Trp Phe Ser Val Ala Glu Glu Xaa Thr  
           115                  120                  125



4109

Glu Trp Leu Gln Ser Phe Leu Leu Leu Leu Phe Arg Ser Leu Lys Gln  
 130 135 140  
 His Pro Pro Leu Leu Leu Asp Thr Val Lys Asn Leu Cys Asp Ile Leu  
 145 150 155 160  
 Asn Pro Leu Asp Leu Leu Gly Ile Tyr Lys Ser Asn Pro Gly Ile Ile  
 165 170 175  
 Gly Leu Gly Gly Leu Val Ser Ser Ile Ala Gly Met Ile Thr Val Ala  
 180 185 190  
 Tyr Pro Gln Met Lys Leu Lys Thr Arg  
 195 200

<210> 4538  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 4538  
 Ala Asp Ile Ala Gly Val Leu Ala Ile Arg Pro Asp Glu Leu Arg Phe  
 1 5 10 15  
 Arg Tyr Ser Met Val Ala Tyr Trp Arg Gln Ala Gly Leu Ser Tyr Ile  
 20 25 30  
 Arg Tyr Ser Gln Ile Cys Ala Lys Ala Val Arg Asp Ala Leu Lys Thr  
 35 40 45  
 Glu Phe Lys Ala Asn Ala Glu Lys Thr Ser Gly Ser Asn Val Lys Ile  
 50 55 60  
 Val Lys Val Lys Lys Glu  
 65 70

<210> 4539  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<400> 4539  
 Ile Lys Ser Leu Asp Glu Gln Cys Val Val Gly Lys Ile Ser Lys His  
 1 5 10 15  
 Trp Thr Gly Ile Leu Arg Glu Ala Phe Thr Asp Ala Asp Asn Phe Gly

## 4110

	20		25		30
Ile	Gln	Phe	Pro	Leu	Asp
	35			40	
Leu	Asp	Val	Lys	Met	Lys
					45
Ala	Val	Met	Ile		
Gly	Ala	Cys	Phe	Leu	Ile
	50			55	
Asp	Phe	Met	Phe	Phe	Glu
					60
Ser	Thr	Gly	Ser		
Gln	Glu	Gln	Lys	Ser	Gly
	65				70
Val	Trp				

&lt;210&gt; 4540

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (364)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (370)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (372)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (374)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4540

Ser	Asn	Leu	Val	Pro	Val	Asp	Ile	Ile	Glu	Ser	Val	Val	Ser	Lys	Glu
1				5					10					15	

Met	Asp	Lys	Arg	Tyr	Leu	Gln	Phe	Asp	Ile	Lys	Ala	Phe	Val	Glu	Asn
			20						25					30	

Asn	Pro	Ala	Ile	Lys	Trp	Cys	Pro	Thr	Pro	Gly	Cys	Asp	Arg	Ala	Val
		35							40				45		

Arg	Leu	Thr	Lys	Gln	Gly	Ser	Asn	Thr	Ser	Gly	Ser	Asp	Thr	Leu	Ser
	50						55						60		

## 4111

Phe	Pro	Leu	Leu	Arg	Ala	Pro	Ala	Val	Asp	Cys	Gly	Lys	Gly	His	Leu	65	70	75	80
Phe	Cys	Trp	Glu	Cys	Leu	Gly	Glu	Ala	His	Glu	Pro	Cys	Asp	Cys	Gln	85	90	95	
Thr	Trp	Lys	Asn	Trp	Leu	Gln	Lys	Ile	Thr	Glu	Met	Lys	Pro	Glu	Glu	100	105	110	
Leu	Val	Gly	Val	Ser	Glu	Ala	Tyr	Glu	Asp	Ala	Ala	Asn	Cys	Leu	Trp	115	120	125	
Leu	Leu	Thr	Asn	Ser	Lys	Pro	Cys	Ala	Asn	Cys	Lys	Ser	Pro	Ile	Gln	130	135	140	
Lys	Asn	Glu	Gly	Cys	Asn	His	Met	Gln	Cys	Ala	Lys	Cys	Lys	Tyr	Asp	145	150	155	160
Phe	Cys	Trp	Ile	Cys	Leu	Glu	Glu	Trp	Lys	Lys	His	Ser	Ser	Ser	Thr	165	170	175	
Gly	Gly	Tyr	Tyr	Arg	Cys	Thr	Arg	Tyr	Glu	Val	Ile	Gln	His	Val	Glu	180	185	190	
Glu	Gln	Ser	Lys	Glu	Met	Thr	Val	Glu	Ala	Glu	Lys	Lys	His	Lys	Arg	195	200	205	
Phe	Gln	Glu	Leu	Asp	Arg	Phe	Met	His	Tyr	Tyr	Thr	Arg	Phe	Lys	Asn	210	215	220	
His	Glu	His	Ser	Tyr	Gln	Leu	Glu	Gln	Arg	Leu	Leu	Lys	Thr	Ala	Lys	225	230	235	240
Glu	Lys	Met	Glu	Gln	Leu	Ser	Arg	Ala	Leu	Lys	Glu	Thr	Glu	Gly	Gly	245	250	255	
Cys	Pro	Asp	Thr	Thr	Phe	Ile	Glu	Asp	Ala	Val	His	Val	Leu	Leu	Lys	260	265	270	
Thr	Arg	Arg	Ile	Leu	Lys	Cys	Ser	Tyr	Pro	Tyr	Gly	Phe	Phe	Leu	Glu	275	280	285	
Pro	Lys	Ser	Thr	Lys	Lys	Glu	Ile	Phe	Glu	Leu	Met	Gln	Thr	Asp	Leu	290	295	300	
Glu	Met	Val	Thr	Glu	Asp	Leu	Ala	Gln	Lys	Val	Asn	Arg	Pro	Tyr	Leu	305	310	315	320
Arg	Thr	Pro	Arg	His	Lys	Ile	Ile	Lys	Ala	Ala	Cys	Leu	Val	Gln	Gln	325	330	335	

## 4112

Lys Arg Gln Glu Phe Leu Gly Ile Cys Gly Leu Gly Gly Val Ala Pro  
                   340                  345                  350

Ala Asp Ser Pro Glu Ala Ser Lys Ala His Phe Xaa Gly Gly Asn Met  
                   355                  360                  365

Gly Xaa Gly Xaa Tyr Xaa Gly Val  
                   370                  375

<210> 4541

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4541

Ala Arg Val Lys Leu Lys Tyr Cys Phe Thr Cys Lys Met Phe Arg Pro  
   1                  5                  10                  15

Pro Arg Thr Ser His Cys Ser Val Cys Asp Asn Cys Val Glu Arg Phe  
                   20                  25                  30

Asp His His Cys Pro Trp Val Gly Asn Cys Val Gly Arg Arg Asn Tyr  
                   35                  40                  45

Arg Phe Phe Tyr Ala Phe Ile Leu Ser Leu Ser Phe Leu Thr Ala Phe  
                   50                  55                  60

Ile Phe Ala Cys Val Val Thr His Leu Thr Leu Arg Ala Gln Gly Ser  
   65                  70                  75                  80

Asn Phe Leu Ser Thr Leu Lys Glu Thr Pro Ala Ser Val Leu Gly Val  
                   85                  90                  95

Gly Asp Leu Leu Leu Leu His Leu Val His Ser Gly Pro Leu Arg Val  
                   100                  105                  110

Ser His Val Pro Arg Arg Leu Gln Pro Asp Tyr  
                   115                  120

<210> 4542

<211> 245

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (138)

## 4113

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (216)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (238)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (244)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4542

Gly	Asp	Thr	Thr	Ile	Pro	Leu	Ser	Leu	Cys	Leu	Ser	Gln	Arg	Pro	His
1					5				10					15	

Leu	Thr	Ser	Pro	Lys	Gly	Ser	Arg	Cys	Ser	Arg	His	Thr	Phe	Ala	Pro
			20					25					30		

Ala	Ala	Met	Thr	Leu	Ser	Pro	Leu	Leu	Leu	Phe	Leu	Pro	Pro	Leu	Leu
		35					40					45			

Leu	Leu	Leu	Asp	Val	Pro	Thr	Ala	Ala	Val	Gln	Ala	Ser	Pro	Leu	Gln
	50					55				60					

Ala	Leu	Asp	Phe	Phe	Gly	Asn	Gly	Pro	Pro	Val	Asn	Tyr	Lys	Thr	Gly
65					70					75					80

Asn	Leu	Tyr	Leu	Arg	Gly	Pro	Leu	Lys	Lys	Ser	Asn	Ala	Pro	Leu	Val
				85					90					95	

## 4114

Asn Val Thr Leu Tyr Tyr Glu Ala Leu Cys Gly Gly Cys Arg Ala Phe  
                   100                                  105                                  110  
 Leu Ile Arg Glu Leu Phe Pro Thr Trp Leu Leu Val Met Glu Ile Leu  
                   115                                  120                                  125  
 Asn Val Thr Leu Val Pro Tyr Gly Asn Xaa Gln Glu Gln Xaa Xaa Xaa  
                   130                                  135                                  140  
 Gly Arg Trp Glu Phe Lys Cys Gln His Gly Glu Glu Glu Cys Lys Phe  
                   145                                  150                                  155                                  160  
 Asn Lys Val Glu Ala Cys Val Leu Asp Glu Leu Asp Met Glu Leu Ala  
                   165                                  170                                  175  
 Phe Leu Thr Ile Val Cys Met Glu Glu Phe Glu Asp Met Glu Arg Ser  
                   180                                  185                                  190  
 Leu Pro Leu Cys Cys Ser Ser Thr Pro Arg Leu Ser Gln Asn Tyr His  
                   195                                  200                                  205  
 Glu Cys Ala Met Gly Arg Gly Xaa Ser His His Ala Thr Pro Arg Gln  
                   210                                  215                                  220  
 Ile Ser Gln His Lys Asp Met Ser Trp Tyr Ala Met Glu Xaa Glu Ile  
                   225                                  230                                  235                                  240  
 Thr Ser Leu Xaa Val  
                   245

&lt;210&gt; 4543

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4543

Tyr Trp Cys Glu Gln Cys Asp Val Gln Phe Ser Ser Ser Ser Glu Leu  
   1                                  5                                  10                                  15  
 Tyr Leu His Phe Gln Glu His Ser Cys Asp Glu Gln Tyr Leu Cys Gln  
                   20                                  25                                  30  
 Phe Cys Glu His Glu Thr Asn Asp Pro Glu Asp Leu His Ser His Val  
                   35                                  40                                  45  
 Val Asn Glu His Ala Cys Lys Leu Ile Glu Leu Ser Asp Lys Tyr Asn  
                   50                                  55                                  60  
 Asn Gly Glu His Gly Gln Tyr Ser Leu Leu Ser Lys Ile Thr Phe Asp

## 4115

65		70		75		80									
Lys	Cys	Lys	Asn	Phe	Phe	Val	Cys	Gln	Val	Cys	Gly	Phe	Arg	Ser	Arg
				85					90					95	
Leu	His	Thr	Asn	Val	Asn	Arg	His	Val	Ala	Ile	Glu	His	Thr	Lys	Ile
			100					105					110		
Phe	Pro	His	Val	Cys	Asp	Asp	Cys	Gly	Lys	Gly	Phe	Ser	Ser	Met	Leu
		115					120					125			
Glu	Tyr	Cys	Lys	His	Leu	Asn	Ser	His	Leu	Ser	Glu	Gly	Ile	Tyr	Leu
	130					135					140				
Cys	Gln	Tyr	Cys	Glu	Tyr	Ser	Thr	Gly	Gln	Ile	Glu	Asp	Leu	Lys	Ile
145					150				155						160
His	Leu	Asp	Phe	Lys	His	Ser	Ala	Asp	Leu	Pro	His	Lys	Cys	Ser	Asp
			165					170						175	
Cys	Leu	Met	Arg	Phe	Gly	Asn	Glu	Arg	Glu	Leu	Ile	Ser	His	Leu	Pro
			180					185					190		
Val	His	Glu	Thr	Thr											
		195													

&lt;210&gt; 4544

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4544

Gly	His	Ala	Met	Ile	Asp	Leu	Arg	Ser	Asp	Thr	Val	Thr	Arg	Pro	Ser
1				5					10					15	
Arg	Ala	Met	Leu	Glu	Ala	Met	Met	Ala	Ala	Pro	Val	Gly	Asp	Asp	Val
			20					25					30		
Tyr	Gly	Asp	Asp	Pro	Thr	Val	Asn	Ala	Leu	Gln	Asp	Tyr	Ala	Ala	Glu
		35					40					45			
Leu	Ser	Gly	Lys	Glu	Ala	Ala	Ile	Phe	Leu	Pro	Thr	Gly	Thr	Gln	Ala
	50					55					60				
Asn	Leu	Val	Ala	Leu	Leu	Ser	His	Cys	Glu	Arg	Gly	Glu	Glu	Tyr	Ile
65					70					75					80
Val	Gly	Gln	Ala	Ala	His	Asn	Tyr	Leu	Phe	Glu	Ala	Gly	Gly	Ala	Ala
				85					90					95	

## 4116

Val Leu Gly Ser Ile Gln Pro Gln Pro Ile Asp Ala Ala Ala Asp Gly  
 100 105 110

Thr Leu Pro Leu Asp Lys Val Ala Met Lys Ile Lys Pro Asp Asp Ile  
 115 120 125

His Phe Ala Arg Thr Lys Leu Leu Ser Leu Glu Asn Thr His Asn Gly  
 130 135 140

Lys Val Leu Pro Arg Glu Tyr Leu Lys Glu Ala Trp Glu Phe Thr Arg  
 145 150 155 160

Glu Arg Asn Leu Ala Leu His Val Asp Gly Ala Arg Ile Phe Asn Ala  
 165 170 175

Val Val Ala Tyr Gly Cys Glu Leu Lys Glu Ile Thr Gln Tyr Cys Asp  
 180 185 190

Ser Phe Thr Ile Cys Leu Ser Lys Gly Leu Gly Thr Pro Val Gly Ser  
 195 200 205

Leu Leu Val Gly Asn Arg Asp Tyr Ile Lys Arg Ala Ile Arg Trp Arg  
 210 215 220

Lys Met Thr Gly Gly Gly Met Arg Gln Ser Gly Ile Leu Ala Ala Ala  
 225 230 235 240

Gly Ile Tyr Ala Leu Lys Asn Asn Val Ala Arg Leu Gln Glu Asp His  
 245 250 255

Asp Asn Ala Ala Trp Met Ala Asp Ser Cys Val Lys Gln Ala Arg Met  
 260 265 270

<210> 4545

<211> 21

<212> PRT

<213> Homo sapiens

<400> 4545

Glu Cys Lys Met Val Gln Pro Leu Trp Lys Thr Ile Trp His Ser Phe  
 1 5 10 15

Asn Pro Ser Asn Ser  
 20



4117

&lt;210&gt; 4546

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (196)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4546

Arg	Gln	Arg	Arg	Lys	Gly	Gly	Gln	Glu	Arg	Gly	Arg	Arg	Gly	Lys	Met
1				5					10					15	

Ala	Ala	Thr	Lys	Arg	Lys	Arg	Arg	Gly	Gly	Phe	Ala	Val	Gln	Ala	Lys
			20					25					30		

Lys	Pro	Lys	Arg	Asn	Glu	Ile	Asp	Ala	Glu	Pro	Pro	Ala	Lys	Arg	His
		35					40					45			

Ala	Thr	Ala	Glu	Glu	Val	Glu	Glu	Glu	Glu	Arg	Asp	Arg	Ile	Pro	Gly
	50					55					60				

Pro	Val	Cys	Lys	Gly	Lys	Trp	Lys	Asn	Lys	Glu	Arg	Ile	Leu	Ile	Phe
65					70					75					80

Ser	Ser	Arg	Gly	Ile	Asn	Phe	Arg	Thr	Arg	His	Leu	Met	Gln	Asp	Leu
				85					90					95	

Arg	Met	Leu	Met	Pro	His	Ser	Lys	Ala	Asp	Thr	Lys	Met	Asp	Arg	Lys
			100					105					110		

Asp	Lys	Leu	Phe	Val	Ile	Asn	Glu	Val	Cys	Glu	Met	Lys	Asn	Cys	Asn
	115						120					125			

Lys	Cys	Ile	Tyr	Phe	Glu	Ala	Lys	Lys	Lys	Gln	Asp	Leu	Tyr	Met	Trp
	130					135					140				

Leu	Ser	Asn	Ser	Pro	His	Gly	Pro	Ser	Ala	Lys	Phe	Leu	Val	Gln	Asn
145					150					155					160

Ile	His	Thr	Leu	Ala	Glu	Leu	Lys	Met	Thr	Gly	Asn	Cys	Leu	Lys	Gly
			165						170					175	

Ser	Arg	Pro	Leu	Leu	Ser	Phe	Asp	Pro	Ala	Phe	Asp	Glu	Leu	Pro	His
			180					185					190		

Tyr	Ala	Leu	Xaa	Lys	Glu	Leu	Leu	Ile	Gln	Ile	Phe	Ser	Thr	Pro	Arg
		195					200					205			

## 4118

Tyr His Pro Lys Ser Gln Pro Phe Val Asp His Val Phe Thr Phe Thr  
 210 215 220  
 Ile Leu Asp Asn Arg Ile Trp Phe Arg Asn Phe Gln Ile Ile Glu Glu  
 225 230 235 240  
 Asp Ala Ala Leu Val Glu Ile Gly Pro Arg Phe Val Leu Asn Leu Ile  
 245 250 255  
 Lys Ile Phe Gln Gly Ser Phe Gly Gly Pro Thr Leu Tyr Glu Asn Pro  
 260 265 270  
 His Tyr Gln Ser Pro Asn Met His Arg Arg Val Ile Arg Ser Ile Thr  
 275 280 285  
 Ala Ala Lys Tyr Arg Glu Lys Gln Gln Val Lys Asp Val Gln Lys Leu  
 290 295 300  
 Arg Lys Lys Glu Pro Lys Thr Leu Leu Pro His Asp Pro Thr Ala Asp  
 305 310 315 320  
 Val Phe Val Thr Pro Ala Glu Glu Lys Pro Ile Glu Ile Gln Trp Val  
 325 330 335  
 Lys Pro Glu Pro Lys Val Asp Leu Lys Ala Arg Lys Lys Arg Ile Tyr  
 340 345 350  
 Lys Arg Gln Arg Lys Met Lys Gln Arg Met Asp Ser Gly Lys Thr Lys  
 355 360 365

&lt;210&gt; 4547

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4547

Ile Pro Gly Ser Thr His Ala Ser Ala Gly Asn Leu Asp Ser Pro Glu  
 1 5 10 15  
 Gly Gly Phe Asp Ala Ile Met Gln Val Ala Val Cys Gly Ser Leu Ile  
 20 25 30  
 Gly Trp Arg Asn Val Thr Arg Leu Leu Val Phe Ser Thr Asp Ala Gly  
 35 40 45

## 4119

Phe His Phe Ala Gly Asp Gly Lys Leu Gly Gly Ile Val Leu Pro Asn  
 50 55 60  
 Asp Gly Gln Cys His Leu Glu Asn Asn Met Tyr Thr Met Ser His Tyr  
 65 70 75 80  
 Tyr Asp Tyr Pro Ser Ile Ala His Leu Val Gln Lys Leu Ser Glu Asn  
 85 90 95  
 Asn Ile Gln Thr Ile Phe Ala Val Thr Glu Glu Phe Gln Pro Val Tyr  
 100 105 110  
 Lys Glu Leu Lys Asn Leu Ile Pro Lys Ser Ala Val Gly Thr Leu Ser  
 115 120 125  
 Ala Asn Ser Ser Asn Val Ile Gln Leu Ile Ile Asp Ala Tyr Asn Ser  
 130 135 140  
 Leu Ser Ser Glu Val Ile Leu Glu Asn Gly Lys Leu Ser Glu Gly Val  
 145 150 155 160  
 Thr Ile Ser Tyr Lys Ser Tyr Cys Lys Asn Gly Val Asn Gly Thr Gly  
 165 170 175  
 Glu Asn Gly Arg Lys Cys Ser Asn Ile Ser Ile Gly Asp Glu Val Gln  
 180 185 190  
 Phe Glu Ile Ser Ile Thr Ser Asn Lys Cys Pro Lys Lys Asp Ser Asp  
 195 200 205  
 Ser Phe Lys Ile Arg Pro Leu Gly Phe Thr Glu Glu Val Glu Val Ile  
 210 215 220  
 Leu Gln Tyr Ile Cys Glu Cys Glu Cys Gln Ser Glu Gly Ile Pro Glu  
 225 230 235 240  
 Ser Pro Lys Cys His Glu Gly Asn Gly Thr Phe Glu Cys Gly Ala Cys  
 245 250 255  
 Arg Cys Asn Glu Gly Arg Val Gly Arg His Cys Glu Cys Ser Thr Asp  
 260 265 270  
 Glu Val Asn Ser Glu Asp Met Asp Ala Tyr Cys Arg Lys Glu Asn Ser  
 275 280 285  
 Ser Glu Ile Cys Ser Asn Asn Gly Glu Cys Val Cys Gly Gln Cys Val  
 290 295 300  
 Cys Arg Lys Arg Asp Asn Thr Asn Glu Ile Tyr Ser Gly Lys Phe Cys  
 305 310 315 320

[illegible]

<210> 4548

## 4121

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4548

Val	Thr	Ser	Lys	Thr	Gln	Val	Gly	Leu	Phe	Lys	Phe	Leu	Lys	Phe	Glu
1				5				10					15		

Ile	Phe	Tyr	Leu	Gln	Lys	Ile	Val	Leu	Cys	Phe	Ile	Ile	Ser	Gln	Met
			20					25					30		

Ser	Val	Arg	Phe	Leu	Ser	Thr	Asn	Asp	His	Ala	Ser	Ile	Phe	Phe	Ser
		35					40					45			

Phe	Lys	Pro	Pro	Asn	Gln	Tyr	Phe	Ser	Phe	Lys	Phe
	50					55					60

&lt;210&gt; 4549

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4549

Thr	Arg	His	Lys	Ala	Gln	Leu	Ile	Phe	Val	Phe	Leu	Val	Glu	Thr	Gly
1				5				10					15		

Phe	Asp	Tyr	Val	Gly	Gln	Ala	Gly	Leu	Lys	Leu	Leu	Thr	Ser	Ser	Asp
			20					25					30		

Pro	Pro	Ala	Ser	Ala	Ser	Gln	Arg	Xaa	Gly	Thr	Ile	Asp	Met	Ser	His
		35					40					45			

Arg	Ala	Trp	Pro	Ser
	50			

&lt;210&gt; 4550

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 4122

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4550

Ala	Gln	Xaa	Leu	Ser	Ser	Pro	Val	Arg	Gly	Ile	Ser	Gly	Glu	Gln	Ser
1				5					10					15	

Thr	Xaa	Gly	Ser	Phe	Pro	Leu	Arg	Tyr	Val	Gln	Asp	Gln	Val	Ala	Ala
			20					25					30		

Pro	Phe	Gln	Leu	Ser	Asn	His	Thr	Gly	Arg	Ile	Lys	Val	Val	Phe	Thr
		35					40					45			

Pro	Ser	Ile	Cys	Lys	Val	Thr	Cys	Thr	Lys	Gly	Ser	Cys	Gln	Asn	Ser
	50					55					60				

Cys	Glu	Lys	Gly	Asn	Thr	Thr	Thr	Leu	Ile	Ser	Glu	Asn	Gly	His	Ala
65					70					75					80

Ala	Asp	Thr	Leu	Thr	Ala	Thr	Asn	Phe	Arg	Val	Val	Ile	Cys	His	Leu
			85						90					95	

Pro	Cys	Met	Asn	Gly	Gly	Gln	Cys	Ser	Ser	Arg	Asp	Lys	Cys	Gln	Cys
			100					105						110	

Pro	Pro	Asn	Phe	Thr	Gly	Lys	Leu	Cys	Gln	Ile	Pro	Val	His	Gly	Ala
		115					120					125			

Ser	Val	Xaa	Lys	Leu	Tyr	Gln	His	Ser	Gln	Gln	Pro	Gly	Lys	Ala	Leu
	130					135					140				

Gly	Thr	His	Val	Ile	His	Ser	Thr	His	Thr	Leu	Pro	Leu	Thr	Val	Thr
145					150					155					160

Ser	Gln	Gln	Glu	Ser	Lys
				165	

&lt;210&gt; 4551

&lt;211&gt; 60

## 4123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4551

Cys Val Pro Ser Thr Ser Ser Pro Gly Ile Ile Leu Ser Leu Ala Leu  
1 5 10 15

Ala Gly Ile Leu Gly Ile Cys Ile Val Val Val Val Ser Ile Trp Leu  
20 25 30

Phe Arg Arg Lys Ser Ile Lys Lys Gly Asp Asn Lys Gly Val Ile Tyr  
35 40 45

Lys Pro Ala Thr Lys Met Glu Thr Glu Ala His Ala  
50 55 60

&lt;210&gt; 4552

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4552

His Cys Ile Leu Met Leu Phe Glu Asn Ala Ile Tyr Ile Val Lys Lys  
1 5 10 15

Arg Ala Gly Ala Pro Ala Ala Leu Val Pro Trp Gly Ser His Pro Ser  
20 25 30

Pro Gly Gly Leu Leu Gly Gly Leu Arg Arg Trp Ala Thr Glu Gly Gln  
35 40 45

Ala Gly Ala Ala His Ser Pro His Glu Gly Ile Ser Val Ser Tyr Ser  
50 55 60

Val Gln Arg Arg Gly Lys Thr Gln Cys Pro Gly Phe Ser Pro Pro Glu  
65 70 75 80

Met Lys Asp Thr Leu Tyr Phe Leu Pro Asn Val Pro Ala Ser Arg Phe  
85 90 95

Ile Met Asn

&lt;210&gt; 4553

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4124

&lt;400&gt; 4553

Gly Gly Trp Phe Tyr Pro Phe Cys Leu Leu Phe Gly Thr Gln Leu Val  
1 5 10 15

Phe Phe Gly Leu Leu Ser Ser Gly Ser Arg Ala Val Leu Ser Asn Thr  
20 25 30

Val Thr Thr Cys Gly Cys Leu Lys Leu Ser Gln Leu Lys Ser His Lys  
35 40 45

Ile Lys Asn Ser Phe Leu Ser Cys Thr Asn His Val Ser Arg Gly Val  
50 55 60

Thr Val Cys Ser Ser Trp Leu Leu Tyr  
65 70

&lt;210&gt; 4554

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (126)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



## 4125

&lt;222&gt; (138)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4554

Cys	Leu	Cys	Leu	His	Cys	Pro	Ser	Ser	Tyr	Leu	Phe	Cys	Ser	Met	Ser
1				5					10					15	

His	Ser	Tyr	Lys	Lys	Ala	Ile	Ser	Asp	Glu	Ala	Leu	Arg	Xaa	Phe	Gln
			20					25					30		

Met	Asp	Tyr	Phe	Gly	Gly	Leu	Xaa	Pro	Gly	Gln	Tyr	Ala	Thr	Arg	Met
		35					40					45			

Thr	Gly	Gln	Val	His	Gly	Ser	Gly	Cys	His	Leu	Arg	Ser	Ala	Pro	Cys
	50					55					60				

Asp	Leu	Gly	Ala	Ser	Gln	Arg	Asn	Tyr	Pro	Val	Ile	Ser	Leu	Lys	Ser
65					70					75					80

Met	Leu	Val	Cys	Phe	Pro	Lys	Ala	Asn	Gln	Gln	Leu	Ile	Gln	Thr	Leu
				85					90					95	

Gly	Pro	Gln	Ser	Arg	Trp	Asn	Asn	Gly	Arg	Arg	Leu	Pro	Glu	Cys	Gln
		100						105					110		

Val	Leu	Gln	Asp	Glu	Leu	Lys	Xaa	Arg	Val	Val	Gly	Arg	Xaa	Val	Gly
		115					120					125			

Gly	Lys	Gly	Pro	Cys	Pro	Asp	Xaa	Cys	Xaa	Pro	Cys	Ile	Tyr
	130					135					140		

&lt;210&gt; 4555

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (265)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4555

Gly	Thr	Ser	Val	Cys	Arg	Arg	Val	Glu	Lys	Asn	Trp	Gly	Ala	Val	Val
1				5					10					15	

## 4126

Arg Ser Pro Glu Gly Thr Pro Gln Lys Ile Arg Gln Leu Ile Asp Glu  
                   20                                  25                                  30  
 Gly Ile Ala Pro Glu Glu Gly Gly Val Asp Ala Lys Asp Thr Ser Ala  
                   35                                  40                                  45  
 Thr Ser Gln Ser Val Asn Gly Ser Pro Gln Ala Glu Gln Pro Ser Leu  
                   50                                  55                                  60  
 Glu Ser Thr Ser Lys Glu Ala Phe Phe Ser Arg Val Glu Thr Phe Ser  
                   65                                  70                                  75                                  80  
 Ser Leu Lys Trp Ala Gly Lys Pro Phe Glu Leu Ser Pro Leu Val Cys  
                                   85                                  90                                  95  
 Ala Lys Tyr Gly Trp Val Thr Val Glu Cys Asp Met Leu Lys Cys Ser  
                   100                                  105                                  110  
 Ser Cys Gln Ala Phe Leu Cys Ala Ser Leu Gln Pro Ala Phe Asp Phe  
                   115                                  120                                  125  
 Asp Arg Tyr Lys Gln Arg Cys Ala Glu Leu Lys Lys Ala Leu Cys Thr  
                   130                                  135                                  140  
 Ala His Glu Lys Phe Cys Phe Trp Pro Asp Ser Pro Ser Pro Asp Arg  
                   145                                  150                                  155                                  160  
 Phe Gly Met Leu Pro Leu Asp Glu Pro Ala Ile Leu Val Ser Glu Phe  
                                   165                                  170                                  175  
 Leu Asp Arg Phe Gln Ser Leu Cys His Leu Asp Leu Gln Leu Pro Ser  
                   180                                  185                                  190  
 Leu Arg Pro Glu Asp Leu Lys Thr Met Cys Leu Thr Glu Asp Lys Ile  
                   195                                  200                                  205  
 Ser Leu Leu Leu His Leu Leu Glu Asp Glu Leu Asp His Arg Thr Asp  
                   210                                  215                                  220  
 Glu Arg Lys Thr Thr Ile Lys Leu Gly Ser Asp Ile Gln Val His Val  
                   225                                  230                                  235                                  240  
 Thr Ala Cys Ile Leu Ser Val Cys Gly Trp Ala Cys Ser Ser Ser Leu  
                   245                                  250                                  255  
 Glu Ser Met Gln Leu Ser Leu Ile Xaa Cys Ser Gln Cys Met Xaa Lys  
                   260                                  265                                  270  
 Val Gly Leu Trp Gly Phe Gln Gln Ile Glu Ser Ser Met Thr Asp Leu  
                   275                                  280                                  285

## 4127

Asp Ala Ser Leu Pro Asp Gln Leu Pro Asn Pro Arg Pro  
 290 295 300

<210> 4556

<211> 163

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4556

Xaa Glu Pro Lys Pro Ser Val Glu Pro Val Lys Ser Ile Ser Ser Met  
 1 5 10 15

Glu Leu Lys Thr Glu Pro Phe Asp Asp Phe Leu Phe Pro Ala Ser Ser  
 20 25 30

Arg Pro Ser Gly Ser Glu Thr Ala Arg Ser Val Pro Asp Met Asp Leu  
 35 40 45

Ser Gly Ser Phe Tyr Ala Ala Asp Trp Glu Pro Leu His Ser Gly Ser  
 50 55 60

Leu Gly Met Gly Pro Met Ala Gln Ser Trp Ser Pro Cys Ala Leu Arg  
 65 70 75 80

Trp Ser Pro Val Leu Pro Ala Ala Leu Leu Thr Arg Leu Pro Ser Ser  
 85 90 95

Ser Pro Thr Pro Arg Leu Thr Pro Ser Pro Ala Val Gln Leu Pro Thr  
 100 105 110

Ala Arg Ala Ala Ala Ala Met Ser Leu Pro Leu Thr Arg Ser Ala His  
 115 120 125

Pro Arg Cys Trp Pro Cys Glu Gly Ala Gly Lys Gly Arg Gln Pro Ala  
 130 135 140

Pro Thr Ser Ala Thr Ala Arg Ala Gly Ala Leu Gln Arg Gly Glu Thr  
 145 150 155 160

His Leu Pro

4128

&lt;210&gt; 4557

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4557

Gln Thr Ala Ser Val Trp Pro Cys Pro His Ser Tyr Met Ser Leu Ser  
1 5 10 15  
Thr Ser Thr Ser Leu Arg Ser Leu Thr Ser Arg Trp Thr Leu Tyr Ser  
20 25 30  
His Val His Leu Ile Pro Asp Glu Leu Trp Ser Tyr Leu Asp Ala Gln  
35 40 45  
Ile Arg Gly Phe Tyr Leu Ser Ile Gln Cys Ser Leu Arg Phe Gln Asp  
50 55 60  
Ile Ser Pro Gln Ala Leu Gly Phe Thr Leu Gly Ile Arg Arg Leu His  
65 70 75 80  
Val Ser Leu Glu Met Thr Cys Lys Ile  
85

&lt;210&gt; 4558

&lt;211&gt; 353

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4558

Gly Ser Leu Asp Leu Trp Arg Gly Ala Glu Leu Ser Pro Gly His Ser  
1 5 10 15  
Thr Leu Phe Thr Leu Cys Ala Cys Ala Lys Gly Ala Met Ala Ala Ser  
20 25 30  
Cys Val Leu Leu His Thr Gly Gln Lys Met Pro Leu Ile Gly Leu Gly  
35 40 45  
Thr Trp Lys Ser Glu Pro Gly Gln Val Lys Ala Ala Val Lys Tyr Ala  
50 55 60  
Leu Ser Val Gly Tyr Arg His Ile Asp Cys Ala Ala Ile Tyr Gly Asn  
65 70 75 80  
Glu Pro Glu Ile Gly Glu Ala Leu Lys Glu Asp Val Gly Pro Gly Lys  
85 90 95

## 4129

Ala Val Pro Arg Glu Glu Leu Phe Val Thr Ser Lys Leu Trp Asn Thr		
100	105	110
Lys His His Pro Glu Asp Val Glu Pro Ala Leu Arg Lys Thr Leu Ala		
115	120	125
Asp Leu Gln Leu Glu Tyr Leu Asp Leu Tyr Leu Met His Trp Pro Tyr		
130	135	140
Ala Phe Glu Arg Gly Asp Asn Pro Phe Pro Lys Asn Ala Asp Gly Thr		
145	150	155
Ile Cys Tyr Asp Ser Thr His Tyr Lys Glu Thr Trp Lys Ala Leu Glu		
165	170	175
Ala Leu Val Ala Lys Gly Leu Val Gln Ala Leu Gly Leu Ser Asn Phe		
180	185	190
Asn Ser Arg Gln Ile Asp Asp Ile Leu Ser Val Ala Ser Val Arg Pro		
195	200	205
Ala Val Leu Gln Val Glu Cys His Pro Tyr Leu Ala Gln Asn Glu Leu		
210	215	220
Ile Ala His Cys Gln Ala Arg Gly Leu Glu Val Thr Ala Tyr Ser Pro		
225	230	235
Leu Gly Ser Ser Asp Arg Ala Trp Arg Asp Pro Asp Glu Pro Val Leu		
245	250	255
Leu Glu Glu Pro Val Val Leu Ala Leu Ala Glu Lys Tyr Gly Arg Ser		
260	265	270
Pro Ala Gln Ile Leu Leu Arg Trp Gln Val Gln Arg Lys Val Ile Cys		
275	280	285
Ile Pro Lys Ser Ile Thr Pro Ser Arg Ile Leu Gln Asn Ile Lys Val		
290	295	300
Phe Asp Phe Thr Phe Ser Pro Glu Glu Met Lys Gln Leu Asn Ala Leu		
305	310	315
Asn Lys Asn Trp Arg Tyr Ile Val Pro Met Leu Thr Val Asp Gly Lys		
325	330	335
Arg Val Pro Arg Asp Ala Gly His Pro Leu Tyr Pro Phe Asn Asp Pro		
340	345	350

Tyr

4130

<210> 4559  
 <211> 275  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (271)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (272)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (273)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4559

Gly	Arg	Val	Gly	Gly	Arg	Val	Gly	Pro	Arg	Asp	Pro	Lys	Ala	Pro	Gly	1	5	10	15
Gln	Phe	Gly	Arg	Pro	Val	Val	Val	Pro	His	Gly	Lys	Glu	Lys	Glu	Ala	20	25	30	
Glu	Arg	Arg	Trp	Lys	Glu	Gly	Asn	Phe	Asn	Val	Tyr	Leu	Ser	Asp	Leu	35	40	45	
Ile	Pro	Val	Asp	Arg	Ala	Ile	Glu	Asp	Thr	Arg	Pro	Ala	Gly	Cys	Ala	50	55	60	
Glu	Gln	Leu	Val	His	Asn	Asn	Leu	Pro	Thr	Thr	Ser	Val	Ile	Met	Cys	65	70	75	80
Phe	Val	Asp	Glu	Val	Trp	Ser	Thr	Leu	Leu	Arg	Ser	Val	His	Ser	Val	85	90	95	
Ile	Asn	Arg	Ser	Pro	Pro	His	Leu	Ile	Lys	Glu	Ile	Leu	Leu	Val	Asp	100	105	110	
Asp	Phe	Ser	Thr	Lys	Asp	Tyr	Leu	Lys	Asp	Asn	Leu	Asp	Lys	Tyr	Met	115	120	125	
Ser	Gln	Phe	Pro	Lys	Val	Arg	Ile	Leu	Arg	Leu	Lys	Glu	Arg	His	Gly	130	135	140	
Leu	Ile	Arg	Ala	Arg	Leu	Ala	Gly	Ala	Gln	Asn	Ala	Thr	Gly	Asp	Val				

## 4131

145                      150                      155                      160  
 Leu Thr Phe Leu Asp Ser His Val Glu Cys Asn Val Gly Trp Leu Glu  
                                  165                      170                      175  
 Pro Leu Leu Glu Arg Val Tyr Leu Ser Arg Lys Lys Val Ala Cys Pro  
                                  180                      185                      190  
 Val Ile Glu Val Ile Asn Asp Lys Asp Met Ser Tyr Met Thr Val Asp  
                                  195                      200                      205  
 Asn Phe Gln Arg Gly Ile Phe Val Trp Pro Met Asn Phe Gly Trp Arg  
                                  210                      215                      220  
 Thr Ile Pro Pro Asp Val Ile Ala Lys Asn Arg Ile Lys Glu Thr Asp  
 225                                   230                      235                      240  
 Thr Ile Arg Cys Pro Val Met Ala Gly Gly Ile Gly Phe Tyr Cys Gln  
                                  245                      250                      255  
 Lys Leu Leu Phe Leu Asn Leu Glu His Thr Asn Pro Trp Pro Xaa Xaa  
                                  260                      265                      270  
 Xaa Trp Gly  
                                  275

&lt;210&gt; 4560

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4560

Ala His Leu Ala Ala Ser Leu Pro Leu Gln Ala Gln Pro Ser Ala Met  
   1                                  5                                  10                                  15  
 Ala Cys Pro Leu Asp Gln Ala Ile Gly Leu Leu Val Ala Ile Phe His  
                                   20                                  25                                  30  
 Lys Tyr Ser Gly Arg Glu Gly Asp Lys His Thr Leu Ser Lys Lys Glu  
                                   35                                  40                                  45  
 Leu Lys Glu Leu Ile Gln Lys Glu Leu Thr Xaa Gly Ser Lys Leu Gln  
                                   50                                  55                                  60

## 4132

Asp Ala Glu Ile Ala Arg Leu Met Glu Asp Leu Asp Arg Asn Lys Asp  
 65 70 75 80

Gln Glu Val Asn Phe Gln Glu Tyr Val Thr Phe Leu Gly Ala Leu Ala  
 85 90 95

Leu Ile Tyr Asn Glu Ala Leu Lys Gly  
 100 105

<210> 4561

<211> 176

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4561

Leu Thr Lys Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala  
 1 5 10 15

Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Ala Ala  
 20 25 30

Gly His Glu Lys Leu Pro Val His Val Glu Asp Ala Leu Thr Tyr Leu  
 35 40 45

Asp Gln Val Lys Ile Arg Phe Gly Ser Asp Pro Ala Thr Tyr Asn Gly  
 50 55 60

Phe Leu Glu Ile Met Lys Glu Phe Lys Ser Gln Ser Ile Asp Thr Pro  
 65 70 75 80

Gly Val Ile Arg Arg Val Ser Gln Leu Phe His Glu His Pro Asp Leu  
 85 90 95

Ile Val Gly Phe Asn Ala Phe Leu Pro Leu Gly Tyr Arg Ile Asp Ile  
 100 105 110

Pro Lys Asn Gly Lys Leu Asn Ile Gln Ser Pro Leu Thr Ser Gln Glu  
 115 120 125

Asn Ser His Asn His Gly Asp Gly Ala Glu Asp Phe Lys Gln Gln Val  
 130 135 140

Pro Xaa Lys Glu Asp Lys Pro Gln Val Pro Leu Glu Ser Asp Ser Val  
 145 150 155 160



## 4133

Glu Phe Asn Asn Ala Ile Ser Tyr Val Asn Lys Ile Lys Thr Arg Phe  
                                   165                                  170                                  175

<210> 4562

<211> 136

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4562

His Glu Xaa Arg Glu His Ala Gly Pro Lys Met Ala Ala Ser Arg Tyr  
   1                                  5                                  10                                  15

Arg Arg Phe Leu Lys Leu Cys Glu Glu Trp Pro Val Asp Glu Thr Lys  
                                   20                                  25                                  30

Arg Gly Arg Asp Leu Gly Ala Tyr Leu Arg Gln Arg Val Ala Gln Ala  
                                   35                                  40                                  45

Phe Arg Glu Gly Glu Asn Thr Gln Val Ala Glu Pro Glu Ala Cys Asp  
                                   50                                  55                                  60

Gln Met Tyr Glu Ser Leu Ala Arg Leu His Ser Asn Tyr Tyr Lys His  
   65                                  70                                  75                                  80

Lys Tyr Pro Arg Pro Arg Asp Thr Ser Phe Ser Gly Leu Ser Leu Glu  
                                   85                                  90                                  95

Glu Tyr Lys Leu Ile Leu Ser Thr Asp Thr Leu Glu Glu Leu Lys Glu  
                                   100                                  105                                  110

Ile Asp Lys Gly Met Trp Lys Lys Leu Gln Glu Lys Phe Ala Pro Lys  
                                   115                                  120                                  125

Gly Pro Glu Glu Asp His Lys Ala  
                                   130                                  135

<210> 4563

<211> 283

## 4134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4563

Lys	Arg	Lys	Ile	Met	Ile	Lys	Arg	His	Glu	Val	Glu	Gln	Gln	Asn	Ile
1				5					10					15	

Arg	Glu	Glu	Leu	Asn	Lys	Lys	Arg	Thr	Gln	Lys	Glu	Met	Glu	His	Ala
			20					25						30	

Met	Leu	Ile	Arg	His	Asp	Glu	Ser	Xaa	Arg	Glu	Leu	Glu	Tyr	Arg	Gln
		35						40					45		

Leu	His	Thr	Leu	Gln	Lys	Leu	Arg	Met	Asp	Leu	Ile	Arg	Leu	Gln	His
	50						55					60			

Gln	Thr	Glu	Leu	Glu	Asn	Gln	Leu	Glu	Tyr	Asn	Lys	Arg	Arg	Glu	Arg
65					70					75					80

Glu	Leu	His	Arg	Lys	His	Val	Met	Glu	Leu	Arg	Gln	Gln	Pro	Lys	Asn
				85						90				95	

Leu	Lys	Ala	Met	Xaa	Met	Gln	Ile	Lys	Lys	Gln	Phe	Gln	Asp	Thr	Cys
			100						105					110	

Lys	Val	Gln	Thr	Lys	Gln	Tyr	Lys	Ala	Leu	Lys	Asn	His	Gln	Leu	Glu
		115						120				125			

Val	Thr	Pro	Lys	Asn	Glu	His	Lys	Thr	Ile	Leu	Lys	Thr	Leu	Lys	Asp
	130						135					140			

Glu	Gln	Thr	Arg	Lys	Leu	Ala	Ile	Leu	Ala	Glu	Gln	Tyr	Glu	Gln	Ser
145					150					155					160

Ile	Asn	Glu	Met	Met	Ala	Ser	Gln	Ala	Leu	Arg	Leu	Asp	Glu	Ala	Gln
			165						170					175	

Glu	Ala	Glu	Cys	Gln	Ala	Leu	Arg	Leu	Gln	Leu	Gln	Gln	Glu	Met	Glu
			180					185					190		

Leu	Leu	Asn	Ala	Tyr	Gln	Ser	Lys	Ile	Lys	Met	Gln	Thr	Glu	Ala	Gln
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4135

195	200	205
His Glu Arg Glu Leu Gln Lys Leu Glu Gln Arg Val Ser Leu Arg Arg		
210	215	220
Ala His Leu Glu Gln Lys Ile Glu Glu Glu Leu Ala Ala Leu Gln Lys		
225	230	235 240
Glu Arg Ser Glu Arg Ile Lys Asn Leu Leu Glu Arg Gln Glu Arg Glu		
245	250	255
Ile Glu Thr Phe Asp Met Glu Ser Leu Arg Met Gly Phe Gly Asn Leu		
260	265	270
Val Thr Leu Asp Phe Pro Lys Glu Asp Tyr Arg		
275	280	

&lt;210&gt; 4564

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (203)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (460)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (461)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4564

Lys Asn Met Glu Thr Glu Gln Pro Glu Glu Thr Phe Pro Asn Thr Glu
1 5 10 15

Thr Asn Gly Glu Phe Gly Lys Arg Pro Ala Glu Asp Met Glu Glu Glu
20 25 30

Gln Ala Phe Lys Arg Ser Arg Asn Thr Asp Glu Met Val Glu Leu Arg
35 40 45

Ile Leu Leu Gln Ser Lys Asn Ala Gly Ala Val Ile Gly Lys Gly Gly
50 55 60

## 4136

Lys Asn Ile Lys Ala Leu Arg Thr Asp Tyr Asn Ala Ser Val Ser Val  
 65 70 75 80  
 Pro Asp Ser Ser Gly Pro Glu Arg Ile Leu Ser Ile Ser Ala Asp Ile  
 85 90 95  
 Glu Thr Ile Gly Glu Ile Leu Lys Lys Ile Ile Pro Thr Leu Glu Glu  
 100 105 110  
 Gly Leu Gln Leu Pro Ser Pro Thr Ala Thr Ser Gln Leu Pro Leu Glu  
 115 120 125  
 Ser Asp Ala Val Glu Cys Leu Asn Tyr Gln His Tyr Lys Gly Ser Asp  
 130 135 140  
 Phe Asp Cys Glu Leu Arg Leu Leu Ile His Gln Ser Leu Ala Gly Gly  
 145 150 155 160  
 Ile Ile Gly Val Lys Gly Ala Lys Ile Lys Glu Leu Arg Glu Asn Thr  
 165 170 175  
 Gln Thr Thr Ile Lys Leu Phe Gln Glu Cys Cys Pro His Ser Thr Asp  
 180 185 190  
 Arg Val Val Leu Ile Gly Gly Lys Pro Asp Xaa Val Val Glu Cys Ile  
 195 200 205  
 Lys Ile Ile Leu Asp Leu Ile Ser Glu Ser Pro Ile Lys Gly Arg Ala  
 210 215 220  
 Gln Pro Tyr Asp Pro Asn Phe Tyr Asp Glu Thr Tyr Asp Tyr Gly Gly  
 225 230 235 240  
 Phe Thr Met Met Phe Asp Asp Arg Arg Gly Arg Pro Val Gly Phe Pro  
 245 250 255  
 Met Arg Gly Arg Gly Gly Phe Asp Arg Met Pro Pro Gly Arg Gly Gly  
 260 265 270  
 Arg Pro Met Pro Pro Ser Arg Arg Asp Tyr Asp Asp Met Ser Pro Arg  
 275 280 285  
 Arg Gly Pro Pro Pro Pro Pro Pro Gly Arg Gly Gly Arg Gly Gly Ser  
 290 295 300  
 Arg Ala Arg Asn Leu Pro Leu Pro Pro Pro Pro Pro Pro Arg Gly Gly  
 305 310 315 320  
 Asp Leu Met Ala Tyr Asp Arg Arg Gly Arg Pro Gly Asp Arg Tyr Asp  
 325 330 335

4137

Gly Met Val Gly Phe Ser Ala Asp Glu Thr Trp Asp Ser Ala Ile Asp  
                   340                                  345                                  350  
 Thr Trp Ser Pro Ser Glu Trp Gln Met Ala Tyr Glu Pro Gln Gly Gly  
                   355                                  360                                  365  
 Ser Gly Tyr Asp Tyr Ser Tyr Ala Gly Gly Arg Gly Ser Tyr Gly Asp  
                   370                                  375                                  380  
 Leu Gly Gly Pro Ile Ile Thr Thr Gln Val Thr Ile Pro Lys Asp Leu  
                   385                                  390                                  395                                  400  
 Ala Gly Ser Ile Ile Gly Lys Gly Gly Gln Arg Ile Lys Gln Ile Arg  
                                   405                                  410                                  415  
 His Glu Ser Gly Ala Ser Ile Lys Ile Asp Glu Pro Leu Glu Gly Ser  
                                   420                                  425                                  430  
 Glu Asp Arg Ile Ile Thr Ile Thr Gly Thr Gln Asp Gln Ile Gln Asn  
                   435                                  440                                  445  
 Ala Gln Tyr Leu Leu Gln Asn Ser Val Ser Ser Xaa Xaa Leu Ala Leu  
                   450                                  455                                  460  
 Cys  
 465

<210> 4565  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (82)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4565  
 Gln Leu Gly Pro Val Val Gly Gly Trp Tyr Lys Val Leu Asp Arg Phe  
   1                                  5                                  10                                  15  
 Ile Pro Gly Thr Thr Lys Val Asp Ala Leu Lys Lys Met Leu Leu Asp  
                   20                                  25                                  30  
 Gln Gly Gly Phe Ala Pro Cys Phe Leu Gly Cys Phe Leu Pro Leu Val  
                   35                                  40                                  45  
 Gly Ala Leu Asn Gly Leu Ser Ala Gln Asp Asn Trp Pro Asn Tyr Ser

Gly Ile Ile Leu Met Pro Leu Ser Pro Thr Thr Ile Tyr Gly Leu Leu  
65                      70                      75                      80

Cys Xaa

<400> 4566

Glu Gln Lys Ser Ile Gln Asp Leu Gln Ala Leu Leu Trp Met Arg Leu  
1 5 10 15

Ile Thr Met Glu Ala Ser Asn Thr His Leu Ser Met Ala Leu Ile Phe  
20 25 30

Ser Thr Ser Trp Pro Leu Lys Met Thr Tyr Asn Phe Ser Val Cys Phe  
35 40 45

Thr Ile Phe Tyr Lys Glu Asn Ser Ile Leu Trp Leu Ile Glu His  
50 55 60

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<400> 4567
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Arg Arg Gly Gly
  1                               5                               10                               15
Val Arg Glu Asn Met Leu Val Lys Tyr Ala Gly Arg Leu Gly Asp Thr
      20                               25                               30
Lys Gln Arg Phe Arg His Ser Lys Ala Gly Met Arg Ser Ser Lys Leu
      35                               40                               45
Cys Phe Asn Lys Leu His Trp Arg Val Pro Tyr Ser Leu Lys Phe Gly
      50                               55                               60
Asn His Asp Pro Glu Pro Gly Trp Ala
      65                               70

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4139

&lt;210&gt; 4568

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4568

Arg Thr Lys Asn Lys Thr Leu Ile Pro Thr Phe Ile Ser Thr Leu Ala  
 1 5 10 15

Lys Thr Gly Leu Ala Phe Phe Ser Asn Ser Ser Phe Ile Ser Ser Leu  
 20 25 30

Pro Cys Pro Ser Leu Pro Phe Leu Ser Gly Ile Gly Ser Val Leu Pro  
 35 40 45

Ile His Met Ala Ala Ser Leu Ile Ala Leu Val Gln Gly Ile Arg Tyr  
 50 55 60

Cys Ala Phe Trp Cys Gln Val Gln Ser Gln Val Pro Ile Tyr Glu Pro  
 65 70 75 80

Val Tyr Lys Lys Lys Lys Ile Gln Val Phe Glu Gly Glu Thr Leu His  
 85 90 95

Cys Glu

&lt;210&gt; 4569

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4569

Ala Leu Gly Phe Ser Ala Glu Gly Ala Pro Phe Pro Leu Asp Gly Ser  
 1 5 10 15

Cys His Val Ile Phe Glu Asn Ser Trp Thr Ala Pro Glu Glu Ala Leu  
 20 25 30

Phe Ser Ser Arg Lys Leu Asp Gly Gly Ser Gln Lys Trp Leu Ile Gly  
 35 40 45

## 4140

Arg Gly Gln Ala Ser Phe Gln Gly Ser Ala Val Pro Ser Trp Phe Arg  
 50 55 60  
 Glu Gly Arg Ala Trp Leu Ser Leu Ala Leu Ser Leu Ser Pro Cys Leu  
 65 70 75 80  
 Ser Ile Thr Thr Phe Pro Pro Glu Glu Xaa Asn Tyr Leu Pro Cys Lys  
 85 90 95  
 Ala Arg Phe Tyr Thr Asp Phe Thr Asn Cys Ala Lys Asn Arg Pro Cys  
 100 105 110  
 Ser Gln Lys Ala Gln Cys Phe Cys Lys Glu  
 115 120

&lt;210&gt; 4570

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4570

Pro Ser Cys Gln Arg Pro Lys Ser Val Ser Trp Cys His Val His Thr  
 1 5 10 15  
 Pro Cys His Phe Thr Leu His Leu Ser Pro Ser Phe Pro Met His Ala  
 20 25 30  
 Tyr Ser Glu His Pro Cys Val Gly Pro Ser Ser Ala Ser Arg Ala Cys  
 35 40 45  
 Ser Ala Val Gly Leu Phe Cys Gly Arg Lys Glu Ala Val Ser Ala Phe  
 50 55 60  
 Ser Asp Gly Thr Gly Val Glu Gly Arg Ser Cys Ile Val Ala Leu Leu  
 65 70 75 80  
 Asn Ser Pro Phe Cys Ser Ile Leu Val  
 85

&lt;210&gt; 4571

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)



## 4141

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4571

Ser	Asn	Val	Ile	Arg	Asn	Glu	Gln	Leu	Pro	Leu	Gln	Tyr	Leu	Ala	Asp
1				5					10					15	

Val	Asp	Thr	Ser	Asp	Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser
			20					25					30		

His	His	Ser	Lys	Arg	Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu
		35					40					45			

Gly	Ala	Xaa	Xaa	Arg	Thr	Xaa	Ala	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg
	50					55					60				

Arg	Lys	Leu	Glu	Glu	Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Ser
65					70					75				80	

Ser	Glu	Glu	Glu	Glu	Ser	Lys	Asp	Glu	Lys	Ala	Glu	Pro	Asn	Arg	Asp
				85					90					95	

Lys	Ser	Val	Gly	Pro	Leu	Pro	Gln	Ala	Asp	Pro	Glu	Val	Ala	Arg	Leu
			100					105					110		

Pro	Ile	Lys	Pro	Thr	Asp	Arg	Lys	Lys	Ala	Pro	Arg	Thr	Leu	Gly	Thr
		115					120					125			

Pro	Ser	Ser	Thr	Thr	Gly	Pro	Gln	Met	Arg	Ser	Cys	Gln	Ser	Trp	Arg
	130					135					140				

Thr	Glu	Trp	Gln
145			

<210> 4572

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4572

## 4142

Ala Leu Ser Pro Ala Met Val Val Pro Glu Asp Gln Leu Thr Arg Trp  
 1 5 10 15  
 His Pro Arg Phe Asn Val Asp Glu Val Pro Asp Ile Glu Pro Ala Ala  
 20 25 30  
 Leu Pro Gln Pro Pro Ala Thr Glu Lys Leu Thr Thr Ala Gln Glu Val  
 35 40 45  
 Leu Ala Arg Ala Arg Asn Leu Ile Ser Pro Arg Met Glu Lys Ala Leu  
 50 55 60  
 Ser Gln Leu Ala Leu Arg Ser Ala Ala Pro Ser Ser Pro Gly Ser Pro  
 65 70 75 80  
 Arg Pro Ala Leu Pro Ala Thr Pro Pro Ala Thr Pro Pro Ala Ala Ser  
 85 90 95  
 Pro Ser Ala Leu Lys Gly Val Ser Gln Asp Leu Leu Glu Arg Ile Arg  
 100 105 110  
 Ala Lys Glu Ala Gln Lys Gln Leu Ala Gln Met Thr Arg Cys Pro Glu  
 115 120 125  
 Gln Glu Gln Arg Leu Gln Arg Leu Glu Arg Leu Pro Glu Leu Ala Arg  
 130 135 140  
 Val Leu Arg Ser Val Phe Val Ser Glu Arg Lys Pro Ala Leu Ser Met  
 145 150 155 160  
 Glu Val Ala Cys Ala Arg Met Val Gly Ser Cys Cys Thr Ile Met Ser  
 165 170 175  
 Pro Gly Glu Met Glu Lys His Leu Leu Leu Leu Ser Glu Leu Leu Pro  
 180 185 190  
 Asp Trp Leu Ser Leu His Arg Ile Arg Thr Asp Thr Tyr Val Lys Leu  
 195 200 205  
 Asp Lys Ala Ala Asp Leu Ala His Ile Thr Ala Arg Leu Ala His Gln  
 210 215 220  
 Thr Arg Ala Glu Glu Gly Leu  
 225 230

&lt;210&gt; 4573

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4143

&lt;400&gt; 4573

Asp Pro Arg Val Arg His Ala Ser Gly Gly Phe Ser Leu Gly Gly Gln  
 1 5 10 15

Thr Lys Trp Gln Trp Gly Pro Gly Cys Pro Leu Leu Arg Asn Gly Glu  
 20 25 30

Leu Phe Ser Pro Val Leu Leu Trp Gly Leu Pro Cys Gly Thr Lys Cys  
 35 40 45

Leu Gly Glu Glu Leu Leu Ala Gly Leu Gln Leu Leu Phe Val Arg Gly  
 50 55 60

Gln Leu Gly Leu Val His Pro Cys Ser Glu Leu Ala Pro Lys Arg Ala  
 65 70 75 80

Met Leu Asn Ser Ser Pro Ser Pro Ser Arg Gln Pro Leu Ser Leu His  
 85 90 95

Ala Arg Gly Ile Gln Leu  
 100

&lt;210&gt; 4574

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4574

Arg Ser Ile Gly Gly Phe Phe Pro Ala Gly Leu Thr Thr Leu Leu Ser  
 1 5 10 15

Gly Leu Lys Pro Phe His Thr Phe Ile Leu Phe Phe Asn Gln Lys Ser  
 20 25 30

Phe Ser Tyr Lys Ile Asn Phe Gly Gln Thr Xaa Lys Lys Lys Lys Lys  
 35 40 45

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys

## 4144

50                                      55                                      60  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 65                                      70                                      75                                      80  
 Lys Lys Lys Lys Gly Gly Pro Xaa  
 85  
  
 <210> 4575  
 <211> 240  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 4575  
 Pro Thr Ala His Cys Arg Arg Leu Gly Ala Ala Glu Ala Arg Gly Ala  
 1                                      5                                      10                                      15  
 Arg Ser Trp Arg Leu Pro Val Pro Arg Leu Cys Arg Pro His Ser Arg  
 20                                      25                                      30  
 Gly Ala Lys Gly Gly Arg Pro Ala Ser Gly Pro Leu Pro Ser Leu Ser  
 35                                      40                                      45  
 Leu Arg Cys Cys Glu Arg Arg Pro Leu Arg Arg Arg Pro Ala Thr Gly  
 50                                      55                                      60  
 Ala Met Ser Ala Asn Glu Asp Gln Glu Met Glu Leu Glu Ala Leu Arg  
 65                                      70                                      75                                      80  
 Ser Ile Tyr Glu Gly Asp Glu Ser Phe Arg Glu Leu Ser Pro Val Ser  
 85                                      90                                      95  
 Phe Gln Tyr Arg Ile Gly Glu Asn Gly Asp Pro Lys Ala Phe Leu Ile  
 100                                      105                                      110  
 Glu Ile Ser Trp Thr Glu Thr Tyr Pro Gln Thr Pro Pro Ile Leu Ser  
 115                                      120                                      125  
 Met Asn Ala Phe Phe Asn Asn Thr Ile Ser Ser Ala Val Lys Gln Ser  
 130                                      135                                      140  
 Ile Leu Ala Lys Leu Gln Glu Ala Val Glu Ala Asn Leu Gly Thr Ala  
 145                                      150                                      155                                      160  
 Met Thr Tyr Thr Leu Phe Glu Tyr Ala Lys Asp Asn Lys Glu Gln Phe  
 165                                      170                                      175  
 Met Glu Asn His Asn Pro Ile Asn Ser Ala Thr Ser Ile Ser Asn Ile  
 180                                      185                                      190

## 4145

Ile Ser Ile Glu Thr Pro Asn Thr Ala Pro Ser Ser Lys Lys Lys Asp  
 195 200 205

Lys Lys Glu Gln Leu Ser Lys Ala Gln Lys Arg Asn Trp Gln Thr Lys  
 210 215 220

Gln Ile Thr Lys Glu Asn Phe Leu Glu Ala Gly Thr Gly Leu Met Leu  
 225 230 235 240

<210> 4576

<211> 89

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4576

Asp Ala Trp Xaa Xaa Lys Lys Glu Lys Glu Lys Glu Lys Lys Arg Lys  
 1 5 10 15

Gly Thr Ser Asp Met Thr Ala Cys Met Lys Ser Asn Arg Val Thr Pro  
 20 25 30

Val Lys Leu Lys Ser Arg Ala Val Asp Ile Leu Ser Asn Gln Gln Glu  
 35 40 45

Val Ser Arg Asn Gln Ala Val Gln Leu Leu Leu Ser Ala Ile Val Ser  
 50 55 60

Ser Gln Lys Met His Asp Asp Gly Val Val Gly Glu Gly Gln Phe Ser  
 65 70 75 80

Ile Leu Phe Lys Ser Lys Leu Pro Glu  
 85

## 4146

<210> 4577  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (33)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4577  
 Pro Thr Arg Pro Met Val Ser Ser Ile Gln Ala Ser Met Asp Arg His  
 1 5 10 15

Leu Arg Asp Gln Ser Thr Glu Gln Ser Pro Ser Asp Leu Pro Gln Arg  
 20 25 30

Xaa Thr Glu Val Val Ser Ser Ser Ala Lys Ser Gly Ser Leu Gln Thr  
 35 40 45

Gly Leu Pro Glu Ser Phe Pro Leu Thr Gly Gly Thr Glu Asn Leu Asn  
 50 55 60

Thr Glu Thr Thr Asp Gly Cys Val Ala Asp Ala Leu Gly Ala Ala Phe  
 65 70 75 80

Ala Thr Arg Ser Lys Ala Gln Arg Gly Asn Ser Val Glu Glu Leu Glu  
 85 90 95

Glu Met Asp Ser Gln Asp Ala Glu Met Thr Asn Thr Thr Glu Pro Met  
 100 105 110

Asp His Ser  
 115

<210> 4578  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (107)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (108)  
 <223> Xaa equals any of the naturally occurring L-amino acids

4147

&lt;400&gt; 4578

Leu Lys Asn His Gln Lys Thr His Thr Ser Glu Lys Ser Tyr Lys Cys  
 1 5 10 15

Asn Glu Cys Arg Lys Ala Phe Ser Tyr Cys Ser Gly Leu Ile Gln Cys  
 20 25 30

Gln Val Ile His Thr Ile Glu Lys Pro Tyr Glu Tyr Gly Lys Cys Gly  
 35 40 45

Lys Ala Phe Arg Gln Arg Thr Asp Leu Lys Lys His Gln Lys Met His  
 50 55 60

Thr Glu Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser  
 65 70 75 80

Gln Ser Thr Tyr Leu Thr Lys His Gln Lys Ile His Ser Glu Glu Lys  
 85 90 95

Ser Asn Ile His Thr Glu Cys Gly Glu Thr Xaa Xaa Gln Asn Ser Ser  
 100 105 110

Phe Leu Gln Gln  
 115

&lt;210&gt; 4579

&lt;211&gt; 598

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4579

Ala Thr Ser Arg Gln Pro Ser Tyr Xaa Arg Thr Trp Cys Arg Arg Cys  
 1 5 10 15

Cys Leu Pro Leu Ala Leu Asn Pro Val Pro Ala Ala Met Ala Pro Gly  
 20 25 30

Gln Leu Ala Leu Phe Ser Val Ser Asp Lys Thr Gly Leu Val Glu Phe

## 4148

35	40	45
Ala Arg Asn Leu Thr	Ala Leu Gly Leu Asn Leu Val	Ala Ser Gly Gly
50	55	60
Thr Ala Lys Ala Leu Arg Asp Ala Gly Leu Ala Val Arg Asp Val Ser		
65	70	75 80
Glu Leu Thr Gly Phe Pro Glu Met Leu Gly Gly Arg Val Lys Thr Leu		
85	90	95
His Pro Ala Val His Ala Gly Ile Leu Ala Arg Asn Ile Pro Glu Asp		
100	105	110
Asn Ala Asp Met Ala Arg Leu Asp Phe Asn Leu Ile Arg Val Val Ala		
115	120	125
Cys Asn Leu Tyr Pro Phe Val Lys Thr Val Ala Ser Pro Gly Val Xaa		
130	135	140
Val Glu Glu Ala Val Glu Gln Ile Asp Ile Gly Gly Val Thr Leu Leu		
145	150	155 160
Arg Ala Ala Ala Lys Asn His Ala Arg Val Thr Val Val Cys Glu Pro		
165	170	175
Glu Asp Tyr Val Val Val Ser Thr Glu Met Gln Ser Ser Glu Ser Lys		
180	185	190
Asp Thr Ser Leu Glu Thr Arg Arg Gln Leu Ala Leu Lys Ala Phe Thr		
195	200	205
His Thr Ala Gln Tyr Asp Glu Ala Ile Ser Asp Tyr Phe Arg Lys Gln		
210	215	220
Tyr Ser Lys Gly Val Ser Gln Met Pro Leu Arg Tyr Gly Met Asn Pro		
225	230	235 240
His Gln Thr Pro Ala Gln Leu Tyr Thr Leu Gln Pro Lys Leu Pro Ile		
245	250	255
Thr Val Leu Asn Gly Ala Pro Gly Phe Ile Asn Leu Cys Asp Ala Leu		
260	265	270
Asn Ala Trp Gln Leu Val Lys Glu Leu Lys Glu Ala Leu Gly Ile Pro		
275	280	285
Ala Ala Ala Ser Phe Lys His Val Ser Pro Ala Gly Ala Ala Val Gly		
290	295	300
Ile Pro Leu Ser Glu Asp Glu Ala Lys Val Cys Met Val Tyr Asp Leu		



## 4149

305		310		315		320
Tyr Lys Thr Leu Thr Pro Ile Ser Ala Ala Tyr Ala Arg Ala Arg Gly						
	325			330		335
Ala Asp Arg Met Ser Ser Phe Gly Asp Phe Val Ala Leu Ser Asp Val						
	340			345		350
Cys Asp Val Pro Thr Ala Lys Ile Ile Ser Arg Glu Val Ser Asp Gly						
	355			360		365
Ile Ile Ala Pro Gly Tyr Glu Glu Glu Ala Leu Thr Ile Leu Ser Lys						
	370			375		380
Lys Lys Asn Gly Asn Tyr Cys Val Leu Gln Met Asp Gln Ser Tyr Lys						
	385			390		395
Pro Asp Glu Asn Glu Val Arg Thr Leu Phe Gly Leu His Leu Ser Gln						
	405			410		415
Lys Arg Asn Asn Gly Val Val Asp Lys Ser Leu Phe Ser Asn Val Val						
	420			425		430
Thr Lys Asn Lys Asp Leu Pro Glu Ser Ala Leu Arg Asp Leu Ile Val						
	435			440		445
Ala Thr Ile Ala Val Lys Tyr Thr Gln Ser Asn Ser Val Cys Tyr Ala						
	450			455		460
Lys Asn Gly Gln Val Ile Gly Ile Gly Ala Gly Gln Gln Ser Arg Ile						
	465			470		475
His Cys Thr Arg Leu Ala Gly Asp Lys Ala Asn Tyr Trp Trp Leu Arg						
	485			490		495
His His Pro Gln Val Leu Ser Met Lys Phe Lys Thr Gly Val Lys Arg						
	500			505		510
Ala Glu Ile Ser Asn Ala Ile Asp Gln Tyr Val Thr Gly Thr Ile Gly						
	515			520		525
Glu Asp Glu Asp Leu Ile Lys Trp Lys Ala Leu Phe Glu Glu Val Pro						
	530			535		540
Glu Leu Leu Thr Glu Ala Glu Lys Lys Glu Trp Val Glu Lys Leu Thr						
	545			550		555
Glu Val Ser Ile Ser Ser Asp Ala Phe Phe Pro Phe Arg Asp Asn Val						
	565			570		575
Asp Arg Ala Lys Arg Ser Gly Val Ala Tyr Ile Ala Ala Pro Pro Val						

## 4150

580

585

590

Leu Leu Leu Thr Lys Leu  
595

&lt;210&gt; 4580

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4580

Cys Ile Ser Lys Gly Glu Lys Arg Ile Gly Ile Phe Leu Phe Asn Ile  
1 5 10 15

Gln Phe Ile Glu Ser Ser Thr Leu Ile Phe Leu Asn Pro Arg Ser Ser  
20 25 30

Gly Ser Tyr His Phe Lys Arg Asn Tyr His Gln Phe Cys Val Ser Lys  
35 40 45

&lt;210&gt; 4581

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4581

His Val Phe Leu Pro Cys Ser Leu Pro Gly Arg Met Glu Phe Tyr Ile  
1 5 10 15

Thr Thr Phe Leu Cys Lys Asn Asn Gly Arg Val Glu Leu Val Val Ile  
20 25 30

Leu Ala Phe His Leu Ala Leu Val Ser Ser Ile Gly Leu Glu Ile Ile  
35 40 45

Gly Arg  
50

&lt;210&gt; 4582

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4151

&lt;400&gt; 4582

Gly Leu Met Glu Ile Glu Ile Thr Cys Lys Asp Ile Thr Val Phe Met  
1 5 10 15

Ser Tyr Ile Leu Val Leu Glu Ile Val Glu Cys Met Ile Asp Asn Ile  
20 25 30

Phe Leu Ile Phe Ile Phe Ser Ser Asn Thr Ser Thr Val  
35 40 45

&lt;210&gt; 4583

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4583

Asn Asp Ser Asn Thr Ala Leu Leu His His Glu Thr Asn Pro Gly Gln  
1 5 10 15

Asp Pro Ile Pro Ser His Gln Pro Thr Ser Leu Leu Ala Ala Gly Gln  
20 25 30

Asp Val Ala Ser Ile Thr Phe His Cys Leu Ser Pro Trp Glu Ala Ala  
35 40 45

Gln Leu Arg Leu Gly Thr Arg Pro Pro Leu Leu Gly Pro Thr Gly Lys  
50 55 60

Ser Val Ala Ala Thr Ala Trp Leu Thr Phe Leu Ser Ser Leu Gly Ser  
65 70 75 80

Gly Thr Ala Pro Pro Cys Pro Trp Leu Gly Arg Gly Glu Lys Lys Leu  
85 90 95

Ser Tyr Ala Phe Pro Leu Pro Leu Val Tyr Arg Thr Ser Leu Pro Ser  
100 105 110

Gln Gln Glu Arg Arg Pro Pro Gly Val Ser Pro Gly Gln  
115 120 125

&lt;210&gt; 4584

&lt;211&gt; 342

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

## 4152

<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (18)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (25)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (47)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (52)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (59)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

## 4153

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (279)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4584

Ile	Thr	Trp	Pro	Thr	Thr	Gly	Pro	Xaa	Ala	Leu	Asn	Leu	Gln	Ala	His
1				5					10					15	

Trp	Xaa	Gly	Pro	Gly	Ser	Ala	Arg	Xaa	Ala	Xaa	His	His	Leu	Glu	Tyr
			20					25					30		

Arg	Cys	Ala	Pro	Arg	Pro	Pro	Ala	Val	Cys	Trp	His	Xaa	Val	Xaa	Arg
		35					40					45			

Gly	Ala	Lys	Xaa	Xaa	Ala	Xaa	Ala	Gln	Ser	Xaa	Xaa	Xaa	Asp	Thr	Cys
	50					55					60				

Ser	Val	Gln	Asn	Gly	Glu	Asp	Asp	Gly	Arg	Asn	Gln	Ala	Arg	Leu	Gly
65					70					75					80

His	Arg	Gly	Thr	Leu	Ala	Leu	Gly	Ser	Leu	Leu	Ala	Gln	Gly	Phe	Asn
				85					90					95	

Val	Arg	Leu	Ser	Gly	Gln	Asp	Val	Gly	Arg	Gly	Thr	Phe	Ser	Gln	Arg
			100					105					110		

His	Ala	Met	Val	Val	Cys	Gln	Glu	Thr	Asp	Asp	Thr	Tyr	Ile	Pro	Leu
		115					120					125			

Asn	His	Met	Asp	Pro	Asn	Gln	Lys	Gly	Phe	Leu	Glu	Val	Ser	Asn	Ser
		130				135					140				

Pro	Leu	Ser	Glu	Glu	Ala	Val	Leu	Gly	Phe	Glu	Tyr	Gly	Met	Ser	Ile
145					150					155					160

Glu	Ser	Pro	Lys	Leu	Leu	Pro	Leu	Trp	Glu	Ala	Gln	Phe	Gly	Asp	Phe
			165					170						175	

Phe	Asn	Gly	Ala	Gln	Ile	Ile	Phe	Asp	Thr	Phe	Ile	Ser	Gly	Gly	Glu
		180						185					190		

Ala	Lys	Trp	Leu	Leu	Gln	Ser	Gly	Ile	Val	Ile	Leu	Leu	Pro	His	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4154

195	200	205
Tyr Asp Gly Ala Gly Pro Asp His Ser Ser Cys Arg Ile Glu Arg Phe		
210	215	220
Leu Gln Met Cys Asp Ser Ala Glu Glu Gly Val Asp Gly Asp Thr Val		
225	230	235 240
Asn Met Phe Val Val His Pro Thr Thr Pro Ala Gln Tyr Phe His Leu		
	245	250 255
Leu Arg Arg Gln Met Val Arg Asn Phe Arg Lys Pro Leu Ile Val Ala		
	260	265 270
Ser Pro Lys Met Leu Leu Xaa Leu Pro Ala Ala Val Ser Thr Leu Gln		
	275	280 285
Glu Met Ala Pro Gly Thr Thr Phe Asn Pro Val Ile Gly Asp Ser Ser		
	290	295 300
Val Asp Pro Lys Lys Val Lys Thr Leu Val Phe Cys Ser Gly Lys His		
305	310	315 320
Phe Tyr Ser Leu Val Asn Lys Glu Asn Leu Trp Gly Pro Arg Ser Met		
	325	330 335
Thr Leu Pro Ser Ser Glu		
	340	

&lt;210&gt; 4585

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4585

Asn Leu Tyr Lys Leu Lys Leu Asn His Glu Leu Gln Lys Lys Ser Ile
1 5 10 15
Leu Pro Lys Leu Asp Val Thr Thr Leu Thr Ser Leu Lys Tyr Glu Val
20 25 30
Asp Cys Leu Lys Asp Ser Ala Tyr Ile Leu Val Cys Thr Phe Arg Asn
35 40 45
Ile Phe Leu Gly Lys Ser Thr Gln His Phe Leu
50 55

## 4155

<210> 4586  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (40)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (66)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (90)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4586  
 Val His Leu Lys Ala Val Lys Met Val Leu Ala Asp Leu Gly Arg Lys  
     1                    5                    10                    15  
 Ile Thr Ser Ala Leu Arg Ser Leu Ser Asn Ala Thr Ile Ile Asn Glu  
                     20                    25                    30  
 Glu Val Cys Lys Ile Leu Tyr Xaa Ile Tyr Met Ile Val Leu Leu Ser  
             35                    40                    45  
 Leu Ala Leu Gly Arg Trp Leu Ile His Asn Pro Arg Ile Tyr Met Tyr  
     50                    55                    60  
 Phe Xaa Val Asp Leu Ile Leu Val Gly Lys Ser Pro Lys Gly Leu Thr  
     65                    70                    75                    80  
 Val Gly Gly Val Tyr Trp Gly Ile Thr Xaa Asn Ser Asn Tyr Phe Asn  
                     85                    90                    95  
 Leu Pro

<210> 4587  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE

## 4156

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4587

Gly	Lys	Leu	Gly	Met	Leu	Gly	Gln	Glu	Gly	Lys	Val	Leu	Val	Asn	Pro
1				5					10					15	

Leu	Trp	Ser	Asn	Ile	Met	Lys	Val	Asn	Tyr	Asn	Ser	Ile	Tyr	Leu	Ser
			20					25					30		

Leu	Met	Pro	Gln	Ser	Glu	Ile	Xaa	Tyr	Xaa	Leu	Gly	Gly	His	Gly	Cys
	35						40					45			

Ala	Pro	Ile	Gln	Tyr	Thr	Phe	Xaa	Gly	Xaa	Asn	Leu	Phe	Ser	Asp	His
	50					55					60				

Phe	Met	Glu	Ser	Leu	Lys	Tyr	Leu
65					70		

&lt;210&gt; 4588

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (221)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4588

Trp	Ile	Pro	Arg	Ala	Ala	Gly	Phe	Gly	Thr	Arg	Pro	Leu	Pro	Gly	Ala
1				5				10						15	

Ala	Gly	Gly	Ala	Ala	Gly	Cys	Thr	Gln	Arg	Arg	Ser	Arg	Glu	Leu	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



20                      25                      30

BNSDOCID: <WO\_\_0122920A2\_1\_>

## 4158

290                                      295                                      300  
 Met Leu Tyr Ser Ser Cys Lys Ser Arg Leu Leu Glu Ile Val Glu Arg  
 305                                      310                                      315                                      320  
 Gln Leu Gln Met Asp Val Ile Arg Lys Ile Glu Ile Asp Asn Gly Asp  
                                     325                                      330                                      335  
 Glu Leu Thr Ala Asp Phe Leu Tyr Glu Glu Val His Pro Lys Gln His  
                                     340                                      345                                      350  
 Ala His Lys Gln Ser Phe Ala Lys Pro Lys Gly Pro Ala Gly Lys Arg  
                                     355                                      360                                      365  
 Gly Ile Arg Arg Leu Ile Arg Gly Pro Ala Glu Thr Glu Ala Thr Thr  
                                     370                                      375                                      380  
 Asp  
 385

&lt;210&gt; 4589

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4589

Ser Val Thr Leu Glu Met Glu Ser Lys Leu Ala Ala Glu Lys Lys Gln  
 1                                      5                                      10                                      15  
 Thr Glu Gln Leu Ser Leu Glu Leu Glu Val Ala Arg Leu Gln Leu Gln  
                                     20                                      25                                      30  
 Gly Leu Asp Leu Ser Ser Arg Ser Leu Leu Gly Ile Xaa Thr Glu Asp  
                                     35                                      40                                      45  
 Ala Ile Gln Gly Arg Asn Glu Ser Cys Asp Ile Ser Lys Glu His Thr  
                                     50                                      55                                      60  
 Ser Glu Thr Thr Glu Arg Thr Pro Lys His Asp Val His Gln Ile Cys  
 65                                      70                                      75                                      80  
 Asp Lys Asp Ala Gln Gln Asp Leu Asn Leu Asp Ile Glu Lys Ile Thr  
                                     85                                      90                                      95

## 4159

Glu Thr Gly Ala Val Lys Pro Thr Gly Glu Cys Ser Gly Glu Gln Ser  
 100 105 110  
 Pro Asp Thr Asn Tyr Glu Pro Pro Gly Glu Asp Lys Thr Gln Gly Ser  
 115 120 125  
 Ser Glu Cys Ile Ser Glu Leu Ser Phe Ser Gly Pro Asn Ala Leu Val  
 130 135 140  
 Pro Met Asp Phe Leu Gly Asn Gln Glu Asn Ile Gln Asn Leu Gln Leu  
 145 150 155 160  
 Arg Val Lys Glu Thr Ser Asn Glu Asn Leu Arg Leu Leu His Val Ile  
 165 170 175  
 Glu Asp Arg Asp Arg Lys Val Glu Ser Leu Leu Asn Glu Met Lys Glu  
 180 185 190  
 Leu Asp Ser Lys Leu His Leu Gln Glu Val Gln Leu Met Thr Lys Ile  
 195 200 205  
 Glu Ala Cys Ile Glu Leu Glu Lys Ile Val Gly Glu Leu Lys Lys Glu  
 210 215 220  
 Asn Ser Asp Leu Ser Glu Lys Leu Glu Tyr Phe Ser Cys Asp His Gln  
 225 230 235 240  
 Glu Leu Leu Gln Arg Val Glu Thr Ser Glu Gly Leu Asn Ser Asp Leu  
 245 250 255  
 Glu Met His Ala Asp Lys Ser Ser Arg Glu Asp Ile Gly Arg  
 260 265 270

&lt;210&gt; 4590

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4590

Ser Ser Val Pro Pro Lys Lys Lys Leu Ala Glu Lys Asp Xaa Lys Lys  
 1 5 10 15

Leu Phe Gly Val Cys Ser Cys Ala Val His Phe Phe Arg Phe Asn Val  
 20 25 30

## 4160

Leu Cys Arg  
35

<210> 4591

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4591

Ser Pro Ala Arg Pro Leu Ile Arg Ser Asp Lys Met Lys Glu Thr Ile  
1 5 10 15

Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly  
20 25 30

Gly Lys Gly Thr Ala Arg Arg Lys Lys Lys Val Val His Arg Thr Ala  
35 40 45

Thr Ala Asp Asp Lys Lys Leu Gln Phe Ser Leu Lys Lys Leu Gly Val  
50 55 60

Asn Asn Ile Ser Gly Ile Glu Glu Val Asn Met Phe Thr Asn Gln Gly  
65 70 75 80

Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ala Ala  
85 90 95

Asn Thr Phe Thr Ile Thr Gly His Ala Glu Thr Lys Gln Leu Thr Glu  
100 105 110

Met Leu Pro Ser Ile Leu Asn Gln Leu Gly Ala Asp Ser Leu Thr Ser  
115 120 125

Leu Arg Arg Leu Ala Glu Ala Leu Pro Lys Gln Ser Val Asp Gly Lys  
130 135 140

Ala Pro Leu Ala Thr Gly Glu Asp Asp Asp Asp Glu Val Pro Asp Leu  
145 150 155 160

Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn  
165 170

<210> 4592

<211> 66

<212> PRT

<213> Homo sapiens

## 4161

&lt;400&gt; 4592

```

Leu Cys Cys Pro Phe His Ile Lys Glu Leu Leu Thr Thr Lys Ala Ala
 1              5              10              15

Pro Ala Phe Pro Ile Cys Leu Ser Ile Trp Leu Ala Gly Lys Glu Arg
          20              25              30

Thr Cys Met Leu Val Lys Glu Glu Val Gly Trp Lys Lys Trp Gly Gly
          35              40              45

Thr Thr Val Lys Ser Arg Val Lys Pro Ser Trp Pro Lys Val Ser Cys
 50              55              60

Arg Leu
 65

```

&lt;210&gt; 4593

&lt;211&gt; 319

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4593

```

Glu Thr Met Ala Lys Asn Pro Pro Glu Asn Cys Glu Asp Cys His Ile
 1              5              10              15

Leu Asn Ala Glu Ala Phe Lys Ser Lys Lys Ile Cys Lys Ser Leu Lys
          20              25              30

Ile Cys Gly Leu Val Phe Gly Ile Leu Ala Leu Thr Leu Ile Val Leu
          35              40              45

Phe Trp Gly Ser Lys His Phe Trp Pro Glu Val Pro Lys Lys Ala Tyr
          50              55              60

Asp Met Glu His Thr Phe Tyr Ser Asn Gly Glu Lys Lys Lys Ile Tyr
 65              70              75              80

Met Glu Ile Asp Pro Val Thr Arg Thr Glu Ile Phe Arg Ser Gly Asn
          85              90              95

Gly Thr Asp Glu Thr Leu Glu Val His Asp Phe Lys Asn Gly Tyr Thr
          100              105              110

Gly Ile Tyr Phe Val Gly Leu Gln Lys Cys Phe Ile Lys Thr Gln Ile
          115              120              125

Lys Val Ile Pro Glu Phe Ser Glu Pro Glu Glu Glu Ile Asp Glu Asn
          130              135              140

```

## 4162

Glu Glu Ile Thr Thr Thr Phe Phe Glu Gln Ser Val Ile Trp Val Pro  
 145 150 155 160  
 Ala Glu Lys Pro Ile Glu Asn Arg Asp Phe Leu Lys Asn Ser Lys Ile  
 165 170 175  
 Leu Glu Ile Cys Asp Asn Val Thr Met Tyr Trp Ile Asn Pro Thr Leu  
 180 185 190  
 Ile Ser Val Ser Glu Leu Gln Asp Phe Glu Glu Glu Gly Glu Asp Leu  
 195 200 205  
 His Phe Pro Ala Asn Glu Lys Lys Gly Ile Glu Gln Asn Glu Gln Trp  
 210 215 220  
 Val Val Pro Gln Val Lys Val Glu Lys Thr Arg His Ala Arg Gln Ala  
 225 230 235 240  
 Ser Glu Glu Glu Leu Pro Ile Asn Asp Tyr Thr Glu Asn Gly Ile Glu  
 245 250 255  
 Phe Asp Pro Met Leu Asp Glu Arg Gly Tyr Cys Cys Ile Tyr Cys Arg  
 260 265 270  
 Arg Gly Asn Arg Tyr Cys Arg Arg Val Cys Glu Pro Leu Leu Gly Tyr  
 275 280 285  
 Tyr Pro Tyr Pro Tyr Cys Tyr Gln Gly Gly Arg Val Ile Cys Arg Val  
 290 295 300  
 Ile Met Pro Cys Asn Trp Trp Val Ala Arg Met Leu Gly Arg Val  
 305 310 315

&lt;210&gt; 4594

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4594

Tyr Cys Phe Ala Phe Ser Ile Glu Thr Glu Asn Phe Ala Ser Gln Ser  
 1 5 10 15  
 Leu Leu Phe Pro Trp Tyr Cys Lys Lys Lys Lys Lys Glu Lys Glu Lys  
 20 25 30  
 Lys Lys Glu Asn Gln Pro Ile Ile Ala Cys Thr Glu Leu Lys Ile Val  
 35 40 45

## 4163

Ile Asn Arg Ala Cys Trp Glu Lys Lys Glu Asn Asn Cys Cys Leu Phe  
 50 55 60  
 Phe Leu Tyr Lys Arg Glu Phe Met Thr Lys Phe Ser Cys Glu Glu Cys  
 65 70 75 80  
 Asp Thr Cys Leu Tyr Phe  
 85

<210> 4595  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 4595  
 Phe Pro Leu Val Leu Val Ser His Gln Arg Thr Val Met Tyr Ala Ser  
 1 5 10 15  
 Phe Val Thr Glu Lys Phe Leu Cys Phe Gln Ser Thr Met Arg Cys Met  
 20 25 30  
 Ile Leu Phe Ser Ser His Phe Pro Gln Ala Pro Val Asn Gln Gly Lys  
 35 40 45  
 Cys Ala Thr Asp Arg Leu Gly Glu Gly Leu Val Val Ala Gln Leu Glu  
 50 55 60  
 Ile Val Ser Lys Ser Lys Pro Pro Ala His Pro Glu Glu Ser Leu Leu  
 65 70 75 80  
 Trp Asn Val Lys Cys Asn His Phe Phe Arg Tyr Lys Thr Phe Pro Asn  
 85 90 95  
 Asn Val Ile Gly Phe Leu Tyr Gly Lys Ile Glu Arg Ser Cys His Pro  
 100 105 110  
 Pro Ala Tyr Ala Phe Ile Ser Phe Val Asp Leu Ser Asp His Leu Leu  
 115 120 125  
 Phe Ala Gln Ser Leu Leu Asn Ser Lys Thr Val Pro Met Asn Gly Thr  
 130 135 140  
 Pro Val Met  
 145

<210> 4596  
 <211> 59

4164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4596

Thr Pro Xaa Gln Phe Gly Gly Tyr Ala Lys Glu Ala Asp Tyr Val Ala  
1 5 10 15

Gln Ala Thr Arg Leu Arg Ala Ala Leu Glu Gly Thr Ala Thr Tyr Arg  
20 25 30

Gly Asp Ile Tyr Phe Cys Thr Gly Tyr Asp Pro Pro Met Lys Pro Tyr  
35 40 45

Gly Arg Arg Asn Glu Ile Trp Leu Leu Lys Thr  
50 55

&lt;210&gt; 4597

&lt;211&gt; 358

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (352)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4597

Phe Ala Val Ile Arg Phe Glu Ser Ile Ile His Glu Phe Asp Pro Trp  
1 5 10 15

Phe Asn Tyr Arg Ser Thr His His Leu Ala Ser His Gly Phe Tyr Glu  
20 25 30

Phe Leu Asn Trp Phe Asp Glu Arg Ala Trp Tyr Pro Leu Gly Arg Ile  
35 40 45

Val Gly Gly Thr Val Tyr Pro Gly Leu Met Ile Thr Ala Gly Leu Ile  
50 55 60

His Trp Ile Leu Asn Thr Leu Asn Ile Thr Val His Ile Arg Asp Val  
65 70 75 80

Cys Val Phe Leu Ala Pro Thr Phe Ser Gly Leu Thr Ser Ile Ser Thr  
85 90 95



## 4165

Phe	Leu	Leu	Thr	Arg	Glu	Leu	Trp	Asn	Gln	Gly	Ala	Gly	Leu	Leu	Ala	100	105	110
Ala	Cys	Phe	Ile	Ala	Ile	Val	Pro	Gly	Tyr	Ile	Ser	Arg	Ser	Val	Ala	115	120	125
Gly	Ser	Phe	Asp	Asn	Glu	Gly	Ile	Ala	Ile	Phe	Ala	Leu	Gln	Phe	Thr	130	135	140
Tyr	Tyr	Leu	Trp	Val	Lys	Ser	Val	Lys	Thr	Gly	Ser	Val	Phe	Trp	Thr	145	150	155
Met	Cys	Cys	Cys	Leu	Ser	Tyr	Phe	Tyr	Met	Val	Ser	Ala	Trp	Gly	Gly	165	170	175
Tyr	Val	Phe	Ile	Ile	Asn	Leu	Ile	Pro	Leu	His	Val	Phe	Val	Leu	Leu	180	185	190
Leu	Met	Gln	Arg	Tyr	Ser	Lys	Arg	Val	Tyr	Ile	Ala	Tyr	Ser	Thr	Phe	195	200	205
Tyr	Ile	Val	Gly	Leu	Ile	Leu	Ser	Met	Gln	Ile	Pro	Phe	Val	Gly	Phe	210	215	220
Gln	Pro	Ile	Arg	Thr	Ser	Glu	His	Met	Ala	Ala	Ala	Gly	Val	Phe	Ala	225	230	235
Leu	Leu	Gln	Ala	Tyr	Ala	Phe	Leu	Gln	Tyr	Leu	Arg	Asp	Arg	Leu	Thr	245	250	255
Lys	Gln	Glu	Phe	Gln	Thr	Leu	Phe	Phe	Leu	Gly	Val	Ser	Leu	Ala	Ala	260	265	270
Gly	Ala	Val	Phe	Leu	Ser	Val	Ile	Tyr	Leu	Thr	Tyr	Thr	Gly	Tyr	Ile	275	280	285
Ala	Pro	Trp	Ser	Gly	Arg	Phe	Tyr	Ser	Leu	Trp	Asp	Thr	Gly	Tyr	Ala	290	295	300
Lys	Ile	His	Ile	Pro	Ile	Ile	Ala	Ser	Val	Ser	Glu	His	Gln	Pro	Thr	305	310	315
Thr	Trp	Val	Ser	Phe	Phe	Phe	Asp	Leu	His	Ile	Leu	Val	Cys	Thr	Phe	325	330	335
Pro	Ala	Gly	Leu	Trp	Phe	Cys	Ile	Lys	Asn	Ile	Asn	Asp	Glu	Arg	Xaa	340	345	350
Phe	Gly	Lys	Arg	Gly	Phe											355		

4166

<210> 4598  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (87)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4598  
 Ile Ser Glu Xaa Ser Phe Phe Gln Asn Met Leu Asn Leu Tyr Asn Phe  
   1                  5                  10                  15  
 Ser Ala Lys Val Met Ala Asp Gln Leu Arg Lys Pro Pro Ser Arg Asp  
                   20                  25                  30  
 Gln Trp Ser Met Thr Pro Gln Thr Val Asn Ala Tyr Tyr Leu Pro Thr  
           35                  40                  45  
 Lys Asn Glu Ile Val Phe Pro Ala Gly Ile Leu Gln Ala Pro Phe Tyr  
   50                  55                  60  
 Ala Arg Asn His Pro Lys Ala Leu Asn Phe Gly Gly Ile Gly Val Val  
   65                  70                  75                  80  
 Met Gly His Glu Leu Thr Xaa Ala Phe Asp Asp Gln Gly Arg Glu Tyr  
                   85                  90                  95  
 Asp Lys Glu Gly Asn Leu Arg Pro Trp Trp Gln Asn Glu Ser Leu Ala  
           100                  105                  110  
 Ala Phe Arg Asn His Thr Ala Cys Met Glu Glu Gln Tyr Asn Gln Tyr  
   115                  120                  125  
 Gln Val Asn Gly Glu Arg Leu Asn Gly Arg Gln Thr Leu Gly Glu Asn  
   130                  135                  140  
 Ile Ala Asp Asn Gly Gly Leu Lys Leu Pro Thr Met Leu Thr Lys His  
 145                  150                  155                  160

Gly

4167

&lt;210&gt; 4599

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4599

Ala	Gln	Val	Val	Val	Leu	Val	Met	Ser	Leu	Thr	Thr	Leu	Trp	Thr	Leu
1				5					10					15	

Asp	Lys	Leu	Leu	Leu	Cys	Val	Cys	Xaa	Leu	Ile	Cys	Lys	Met	Lys	Ile
		20						25					30		

Ile	Ser	Val	Ser	Tyr	Arg	Tyr	Ser	Leu	Asn	Arg	Asp	Asn	Tyr	Thr	Tyr
		35					40					45			

Phe	Lys	Val	Val	Lys	Tyr	Thr	Ile	Thr	Thr	Arg
	50					55				

&lt;210&gt; 4600

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4600

Asp	Gln	Pro	Gly	Gln	His	Ser	Lys	Thr	Pro	Ser	Leu	Gln	Lys	Asn	Leu
1				5					10					15	

Lys	Ile	Ser	Gln	Val	Trp	Trp	His	Ala	Pro	Val	Val	Pro	Ala	Thr	Arg
			20					25					30		

Asp	Ala	Glu	Val	Arg	Gly	Ser	Leu	Glu	Pro	Gly	Arg
			35				40				

&lt;210&gt; 4601

&lt;211&gt; 397

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

## 4168

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (392)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (395)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (396)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4601

Ser	His	Gly	Pro	Ala	Ala	Gly	Pro	Arg	Ser	Ala	Leu	Gln	His	Asn	Lys
1				5				10						15	

Met	Ala	Asn	Gln	Val	Asn	Gly	Asn	Ala	Val	Gln	Leu	Lys	Glu	Glu	Glu
		20					25						30		

Glu	Pro	Met	Asp	Thr	Ser	Ser	Val	Thr	His	Thr	Glu	His	Tyr	Lys	Thr
		35					40					45			

Leu	Ile	Glu	Ala	Gly	Leu	Pro	Gln	Lys	Val	Ala	Glu	Arg	Leu	Asp	Glu
	50					55					60				

Ile	Phe	Gln	Thr	Gly	Leu	Val	Ala	Tyr	Val	Asp	Leu	Asp	Glu	Arg	Ala
	65				70					75					80

Ile	Asp	Ala	Leu	Arg	Glu	Phe	Asn	Glu	Glu	Gly	Ala	Leu	Ser	Val	Leu
			85						90					95	

Gln	Gln	Phe	Lys	Glu	Ser	Asp	Leu	Ser	His	Val	Gln	Asn	Lys	Ser	Ala
		100						105					110		

Phe	Leu	Cys	Gly	Val	Met	Lys	Thr	Tyr	Arg	Gln	Arg	Glu	Lys	Gln	Gly
		115					120					125			

Ser	Lys	Val	Gln	Glu	Ser	Thr	Lys	Gly	Pro	Asp	Glu	Ala	Lys	Ile	Lys
	130						135				140				

Ala	Leu	Leu	Glu	Arg	Thr	Gly	Tyr	Thr	Leu	Asp	Val	Thr	Thr	Gly	Gln
145						150				155					160

Arg	Lys	Tyr	Gly	Gly	Pro	Pro	Pro	Asp	Ser	Val	Tyr	Ser	Gly	Val	Gln
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 165

170

175

Tyr Glu Asp Glu Leu Val Pro Leu Phe Glu Lys Ala Gly Pro Ile Trp  
195 200 205

Asp Leu Arg Leu Met Met Asp Pro Leu Ser Gly Gln Asn Arg Gly Tyr  
210 215 220

Ala Phe Ile Thr Phe Cys Gly Lys Glu Ala Ala Gln Glu Ala Val Lys  
225 230 235 240

Leu Cys Asp Ser Tyr Glu Ile Arg Pro Gly Lys His Leu Gly Val Cys  
245 250 255

Ile Ser Val Ala Asn Asn Arg Leu Phe Val Gly Ser Ile Pro Xaa Asn  
260 265 270

Lys Thr Lys Glu Asn Ile Leu Glu Glu Phe Ser Lys Val Thr Glu Gly  
275 280 285

Leu Val Asp Val Ile Leu Tyr His Gln Pro Asp Asp Lys Lys Lys Asn  
290 295 300

Arg Gly Phe Cys Phe Leu Glu Tyr Glu Asp His Lys Ser Ala Ala Gln  
305 310 315 320

Ala Arg Arg Arg Leu Met Ser Gly Lys Val Lys Val Trp Gly Asn Val  
325 330 335

Val	Thr	Val	Glu	Trp	Ala	Asp	Pro	Val	Glu	Glu	Pro	Asp	Pro	Glu	Val
			340					345					350		

Met Ala Lys Val Lys Val Leu Phe Val Arg Asn Leu Ala Thr Thr Val  
355 360 365

Thr Glu Glu Ile Leu Glu Lys Ser Phe Ser Glu Phe Gly Lys Leu Glu  
370 375 380

Arg Val Lys Lys Leu Lys Val Xaa Ala Ala Xaa Xaa Asn  
385 390 395

<210> 4602

<211> 355

<212> PRT

<213> Homo sapiens

## 4170

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (253)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4602

Lys	Xaa	His	Leu	Leu	Tyr	Arg	Pro	Leu	Glu	Gln	Gln	His	Gly	Val	Ile
1				5					10					15	

Pro	Asp	Arg	Asp	Ala	Glu	Phe	Cys	Leu	Phe	Asp	Arg	Val	Val	Asn	Val
			20					25					30		

Arg	Glu	Asn	Phe	Ser	Val	Pro	Val	Gly	Leu	Arg	Gly	Thr	Ile	Ile	Gly
		35					40					45			

Ile	Lys	Gly	Ala	Asn	Arg	Glu	Ala	Asp	Val	Leu	Phe	Glu	Val	Leu	Phe
	50					55					60				

Asp	Xaa	Glu	Phe	Pro	Gly	Gly	Leu	Thr	Ile	Arg	Cys	Ser	Pro	Gly	Arg
65					70					75					80

Gly	Tyr	Arg	Leu	Pro	Thr	Ser	Ala	Leu	Val	Asn	Leu	Ser	His	Gly	Ser
				85					90					95	

Arg	Ser	Glu	Thr	Gly	Asn	Gln	Lys	Leu	Thr	Ala	Ile	Val	Lys	Pro	Gln
				100				105					110		

Pro	Ala	Val	His	Gln	His	Ser	Ser	Ser	Ser	Ser	Val	Ser	Ser	Gly	His
		115					120					125			

Leu	Gly	Xaa	Leu	Asn	His	Ser	Pro	Gln	Ser	Leu	Phe	Val	Pro	Thr	Gln
	130					135					140				

Val	Pro	Thr	Lys	Asp	Asp	Asp	Glu	Phe	Cys	Asn	Ile	Trp	Gln	Ser	Leu
145					150					155					160

## 4171

Gln	Gly	Ser	Gly	Lys	Met	Gln	Tyr	Phe	Glu	Pro	Thr	Ile	Gln	Glu	Lys	165	170	175	
Gly	Ala	Val	Leu	Pro	Gln	Glu	Ile	Ser	Gln	Val	Asn	Gln	His	His	Lys	180	185	190	
Ser	Gly	Phe	Asn	Asp	Asn	Ser	Val	Lys	Tyr	Gln	Gln	Arg	Lys	His	Asp	195	200	205	
Pro	His	Arg	Lys	Phe	Lys	Glu	Glu	Cys	Lys	Ser	Pro	Lys	Ala	Glu	Cys	210	215	220	
Trp	Ser	Gln	Lys	Met	Ser	Asn	Lys	Gln	Pro	Asn	Ser	Gly	Ile	Glu	Asn	225	230	235	240
Phe	Leu	Ala	Ser	Leu	Asn	Ile	Ser	Lys	Glu	Asn	Glu	Xaa	Gln	Ser	Ser	245	250	255	
His	His	Gly	Glu	Pro	Pro	Ser	Glu	Glu	His	Leu	Ser	Pro	Gln	Ser	Phe	260	265	270	
Ala	Met	Lys	Gly	Thr	Arg	Met	Leu	Lys	Glu	Ile	Leu	Lys	Ile	Asp	Gly	275	280	285	
Ser	Asn	Thr	Val	Asp	His	Lys	Asn	Glu	Ile	Lys	Gln	Ile	Ala	Asn	Glu	290	295	300	
Ile	Pro	Val	Ser	Ser	Asn	Arg	Arg	Asp	Glu	Tyr	Gly	Leu	Pro	Ser	Gln	305	310	315	320
Pro	Lys	Gln	Asn	Lys	Lys	Leu	Ala	Ser	Tyr	Met	Asn	Lys	Pro	His	Ser	325	330	335	
Ala	Asn	Glu	Tyr	His	Asn	Val	Gln	Ser	Met	Asp	Asn	Met	Cys	Trp	Pro	340	345	350	
Ala	Pro	Ser														355			

&lt;210&gt; 4603

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4172

&lt;400&gt; 4603

His	Arg	Arg	Tyr	Ser	Val	Ala	Ser	Gln	Val	Pro	Ser	Gly	Cys	Thr	Leu	1	5	10	15
Glu	Asp	His	Thr	Arg	Phe	Leu	Phe	Gly	Cys	Gln	Arg	Pro	Pro	His	Pro	20	25	30	
Pro	Leu	Ser	Trp	Glu	Lys	Asp	Gly	Gly	Xaa	Val	Arg	Gln	Asp	Leu	Ala	35	40	45	
Gln	Leu	Met	Asn	Ser	Ser	Gly	Ser	His	Lys	Asp	Leu	Ala	Gly	Lys	Tyr	50	55	60	
Arg	Gln	Ile	Leu	Glu	Lys	Ala	Ile	Gln	Leu	Ser	Gly	Ala	Glu	Gln	Leu	65	70	75	80
Glu	Ala	Leu	Lys	Ala	Phe	Val	Glu	Ala	Met	Val	Asn	Glu	Asn	Val	Ser	85	90	95	
Leu	Val	Ile	Ser	Arg	Gln	Leu	Leu	Thr	Asp	Phe	Cys	Thr	His	Leu	Pro	100	105	110	
Asn	Leu	Pro	Asp	Ser	Thr	Ala	Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	115	120	125	
Lys	Ile	Gln	Pro	Arg	Val	Ile	Ser	Phe	Glu	Glu	Gln	Val	Ala	Ser	Ile	130	135	140	
Arg	Gln	His	Leu	Ala	Ser	Ile	Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	145	150	155	160
Ala	Ala	Gln	Val	Leu	Val	Gly	Ile	Pro	Leu	Glu	Thr	Gly	Gln	Lys	Gln	165	170	175	
Tyr	Asn	Val	Asp	Tyr	Lys	Leu	Glu	Thr	Tyr	Leu	Lys	Ile	Ala	Arg	Leu	180	185	190	
Tyr	Leu	Glu	Asp	Asp	Asp	Pro	Val	Gln	Ala	Glu	Ala	Tyr	Ile	Asn	Arg	195	200	205	
Ala	Ser	Leu	Leu	Gln	Asn	Glu	Ser	Thr	Asn	Glu	Gln	Leu	Gln	Ile	His	210	215	220	
Tyr	Lys	Val	Cys	Tyr	Ala	Arg	Val	Leu	Asp	Tyr	Arg	Arg	Lys	Phe	Ile	225	230	235	240
Glu	Ala	Ala	Gln	Arg	Tyr	Asn	Glu	Leu	Ser	Tyr	Lys	Thr	Ile	Val	His	245	250	255	
Glu	Ser	Glu	Arg	Leu	Glu	Ala	Leu	Lys	His	Ala	Leu	His	Cys	Thr	Ile	260	265	270	



## 4173

Leu Ala Ser Ala Gly Gln Gln Arg Ser Arg Met Leu Ala Thr Leu Phe  
 275 280 285

Lys Asp Glu Arg Cys Gln Gln Leu Ala Ala Tyr Gly Ile Leu Glu Lys  
 290 295 300

Met Tyr Leu Asp Arg Ile Ile Arg Gly Asn Gln Leu Gln Glu Phe Ala  
 305 310 315 320

Ala Met Leu Met Pro His Gln Lys Ala Thr Thr Ala Asp Gly Ser Ser  
 325 330 335

Ile Leu Asp Arg Ala Val Ile Glu His Asn Leu Leu Ser Ala Ser Lys  
 340 345 350

Leu Tyr Asn Asn Ile Thr Phe Glu Glu Leu Gly Ala Leu Leu Glu Ile  
 355 360 365

Pro Ala Ala Lys Ala Glu Lys Ile Ala Ser Gln Met Ile Thr Glu Asp  
 370 375 380

Val  
 385

<210> 4604

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4604

Ala His Gly Gln Ile Glu Gly Lys Ala Leu Thr His Asp His Thr Ala  
 1 5 10 15

Glu Lys Trp Gln Arg Gln Asp Leu Asn Leu Glu Pro Leu Ala Pro His  
 20 25 30

Thr Ser Asn Leu Asn His Ser Pro Tyr Asn Thr Thr Tyr Val Val Lys  
 35 40 45

Met Cys Gly Gly His Ala Ile Asn Val Gly Pro Phe Thr Val Ala Gly  
 50 55 60

Arg Gly Arg Asn Leu Gln Phe Leu Arg Val Leu Leu Arg Cys Pro  
 65 70 75 80

Pro Val Leu Gly His Ser Cys Ser Leu Pro Cys Pro Ala Trp Ser His  
 85 90 95

## 4174

Pro Pro Ser Ala Asn Arg Ser Leu Gly Arg Val Leu Trp Ala Leu Ile  
                   100                  105                  110

Arg Pro Trp Gln Gly Arg Ser Ser  
           115                  120

<210> 4605

<211> 390

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4605

Thr Ser Val Ala Ala Ala Ala Ala Arg Gly Arg Ala Gly Cys Pro Leu  
   1                  5                  10                  15

Thr Ala Ala Ser Ala Ala Arg Phe Lys Met Ala Ala Cys Ser His Ser  
           20                  25                  30

Phe Ser Ala Glu Arg Leu Leu Thr Phe Ile Val Phe Ser Ala Arg Phe  
           35                  40                  45

Asp Arg Leu Xaa Pro Ala Ala Leu Ser Gly Ile Phe Tyr Gln Ala Glu  
       50                  55                  60

Met His Arg Thr Thr Arg Ile Lys Ile Thr Glu Leu Asn Pro His Leu  
   65                  70                  75                  80

Met Cys Val Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Ile  
                   85                  90                  95

Glu Cys Leu His Ser Phe Cys Lys Thr Cys Ile Val Arg Tyr Leu Glu  
           100                  105                  110

Thr Ser Lys Tyr Cys Pro Ile Cys Asp Val Gln Val His Lys Thr Arg  
       115                  120                  125

Pro Leu Leu Asn Ile Arg Ser Asp Lys Thr Leu Gln Asp Ile Val Tyr  
       130                  135                  140

Lys Leu Val Pro Gly Leu Phe Lys Asn Glu Met Lys Arg Arg Arg Asp  
   145                  150                  155                  160

Phe Tyr Ala Ala His Pro Ser Ala Asp Ala Ala Asn Gly Ser Asn Glu  
           165                  170                  175

## 4175

Asp Arg Gly Glu Val Ala Asp Glu Asp Lys Arg Ile Ile Thr Asp Asp  
 180 185 190  
 Glu Ile Ile Ser Leu Ser Ile Glu Phe Phe Asp Gln Asn Arg Leu Asp  
 195 200 205  
 Arg Lys Val Asn Lys Asp Lys Glu Lys Ser Lys Glu Glu Val Asn Asp  
 210 215 220  
 Lys Arg Tyr Leu Arg Cys Pro Ala Ala Met Thr Val Met His Leu Arg  
 225 230 235 240  
 Lys Phe Leu Arg Ser Lys Met Asp Ile Pro Asn Thr Phe Gln Ile Asp  
 245 250 255  
 Val Met Tyr Glu Glu Glu Pro Leu Lys Asp Tyr Tyr Thr Leu Met Asp  
 260 265 270  
 Ile Ala Tyr Ile Tyr Thr Trp Arg Arg Asn Gly Pro Leu Pro Leu Lys  
 275 280 285  
 Tyr Arg Val Arg Pro Thr Cys Lys Arg Met Lys Ile Ser His Gln Arg  
 290 295 300  
 Asp Gly Leu Thr Asn Ala Gly Glu Leu Glu Ser Asp Ser Gly Ser Asp  
 305 310 315 320  
 Lys Ala Asn Ser Pro Ala Gly Gly Ile Pro Ser Thr Ser Ser Cys Leu  
 325 330 335  
 Pro Ser Pro Ser Thr Pro Val Gln Ser Pro His Pro Gln Phe Pro His  
 340 345 350  
 Ile Ser Ser Thr Met Asn Gly Thr Ser Asn Ser Pro Ser Gly Asn His  
 355 360 365  
 Gln Ser Ser Phe Ala Asn Arg Pro Arg Lys Ser Ser Val Asn Gly Ser  
 370 375 380  
 Ser Ala Thr Ser Ser Gly  
 385 390

&lt;210&gt; 4606

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4606

## 4176

Leu Thr Gly Leu Ser Ile Ser Ser Thr Pro Pro Ala Val Ser Ser Val  
 1 5 10 15  
 Leu Ser Thr Gly Val Pro Thr Val Pro Leu Leu Pro Pro Gln Val Asn  
 20 25 30  
 Gln Ser Leu Thr Ser Val Pro Pro Met Asn Pro Ala Thr Thr Leu Pro  
 35 40 45  
 Gly Leu Met Pro Leu Pro Ala Gly Leu Pro Asn Leu Pro Asn Leu Asn  
 50 55 60  
 Leu Asn Leu Pro Ala Pro His Ile Met Pro Gly Val Gly Leu Pro Glu  
 65 70 75 80  
 Leu Val Asn Pro Gly Leu Pro Pro Leu Pro Ser Met Pro Pro Arg Asn  
 85 90 95  
 Leu Pro Gly Ile Ala Pro Leu Pro Leu Pro Ser Glu Phe Leu Pro Ser  
 100 105 110  
 Phe Pro Leu Val Pro Glu Ser Ser Ser Ala Ala Ser Ser Gly Glu Leu  
 115 120 125  
 Leu Ser Ser Leu Pro Pro Thr Ser Asn Ala Pro Ser Asp Pro Ala Thr  
 130 135 140  
 Thr Thr Ala Lys Ala Asp Ala Ala Ser Ser Leu Thr Val Asp Val Thr  
 145 150 155 160  
 Pro Pro Thr Ala Lys Ala Pro Thr Thr Val Glu Asp Arg Val Gly Asp  
 165 170 175  
 Ser Thr Pro Val Ser Glu Lys Pro Val Ser Ala Ala Val Asp Ala Asn  
 180 185 190  
 Ala Ser Glu Ser Pro  
 195

&lt;210&gt; 4607

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4607

Leu Met Phe Tyr Val Leu Phe Trp Thr Leu Ser Ser Cys Lys Asn Phe  
 1 5 10 15  
 Tyr Lys Asn Cys Phe Leu His Pro Cys Gly Ala Tyr Ser Ser Glu Pro

4177

	20		25		30	
Ser	Pro	Gln	Ser	Gln	Cys	Leu
	35				40	
Cys	Phe	Leu	Phe	Tyr	Phe	Cys
					45	
Ser	Ile					
Arg	Phe	Leu	Leu	Leu	Leu	Cys
	50				55	
Leu	Lys	Ser	Ser	Leu	Gly	Ser
				60		
Tyr	Gln					
Gly	Phe	Ser	Phe	Cys	Val	Ala
	65				70	
Phe	Ala	Ala	Ala	Trp	Ile	Lys
				75		
His	Trp	Leu				
		80				
Thr	Val	Leu	Met	Cys	Glu	Glu
			85			
Lys	Lys	Phe	Ser	Lys	Ala	Gly
		90				
Glu	Leu					
		95				

&lt;210&gt; 4608

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4608

Pro	Cys	Ala	Trp	Arg	Ala	Ala	Arg	Gly	Gly	Pro	Cys	Ala	Ala	Pro	Leu
1				5					10					15	

Gly	Leu	Arg	Glu	Arg	Gly	Arg	Val	Ser	Xaa	Arg	Leu	Leu	Gly	Pro	Ala
		20						25					30		

Ala	Ala	Arg	Ala	Leu	Leu	Leu	Gly	Leu	Pro	Gly	Arg	Thr	Leu	Glu	Ala
		35					40					45			

Ala	Ser	Gly	Arg	Ser	Trp	Leu	Ala	Ala	Ala	Arg	Asp	Arg	Pro	Ala	Glu
	50					55					60				

## 4178

Pro Leu Phe Gly Arg Gly Glu Gly Gly Ser Gln Ala Ser Gly Xaa Ala  
 65 70 75 80  
 Gly Ala Ala Ala Glu Ala Pro Gly Xaa Gln Trp Gly Pro Ala Ser Thr  
 85 90 95  
 Pro Ser Leu Tyr Glu Asn Pro Trp Thr Ile Pro Asn Met Leu Ser Met  
 100 105 110  
 Thr Arg Ile Gly Leu Ala Pro Val Leu Gly Tyr Leu Ile Ile Glu Glu  
 115 120 125  
 Asp Phe Asn Ile Ala Leu Gly Val Phe Ala Leu Ala Gly Leu Thr Asp  
 130 135 140  
 Leu Leu Asp Gly Phe Ile Ala Arg Asn Trp Ala Asn Gln Arg Ser Ala  
 145 150 155 160  
 Leu Gly Ser Ala Leu Asp Pro Leu Ala Asp Lys Ile Leu Ile Ser Ile  
 165 170 175  
 Leu Tyr Val Ser Leu Thr Tyr Ala Asp Leu Ile Pro Val Pro Leu Thr  
 180 185 190  
 Tyr Met Ile Ile Ser Arg Asp Val Met Leu Ile Ala Ala Val Phe Tyr  
 195 200 205  
 Val Arg Tyr Arg Thr Leu Pro Thr Pro Arg Thr Leu Ala Lys Tyr Phe  
 210 215 220  
 Asn Pro Cys Tyr Ala Thr Ala Arg Leu Lys Pro Thr Phe Ile Ser Lys  
 225 230 235 240  
 Val Asn Thr Ala Val Gln Leu Ile Leu Val Ala Ala Ser Leu Ala Ala  
 245 250 255  
 Pro Val Phe Asn Tyr Ala Asp Ser Ile Tyr Leu Gln Ile Leu Trp Cys  
 260 265 270  
 Phe Thr Ala Phe Thr Thr Ala Ala Ser Ala Tyr Ser Tyr Tyr His Tyr  
 275 280 285  
 Gly Arg Lys Thr Val Gln Val Ile Lys Asp  
 290 295

&lt;210&gt; 4609

&lt;211&gt; 279

&lt;212&gt; PRT

4179

&lt;213&gt; Homo sapiens

&lt;400&gt; 4609

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Glu Gly Pro Ala Glu Gly Asn Met Ala Ala Lys Val Phe Glu Ser Ile
 1             5             10             15

Gly Lys Phe Gly Leu Ala Leu Ala Val Ala Gly Gly Val Val Asn Ser
          20             25             30

Ala Leu Tyr Asn Val Asp Ala Gly His Arg Ala Val Ile Phe Asp Arg
          35             40             45

Phe Arg Gly Val Gln Asp Ile Val Val Gly Glu Gly Thr His Phe Leu
          50             55             60

Ile Pro Trp Val Gln Lys Pro Ile Ile Phe Asp Cys Arg Ser Arg Pro
          65             70             75             80

Arg Asn Val Pro Val Ile Thr Gly Ser Lys Asp Leu Gln Asn Val Asn
          85             90             95

Ile Thr Leu Arg Ile Leu Phe Arg Pro Val Ala Ser Gln Leu Pro Arg
          100             105             110

Ile Phe Thr Ser Ile Gly Glu Asp Tyr Asp Glu Arg Val Leu Pro Ser
          115             120             125

Ile Thr Thr Glu Ile Leu Lys Ser Val Val Ala Arg Phe Asp Ala Gly
          130             135             140

Glu Leu Ile Thr Gln Arg Glu Leu Val Ser Arg Gln Val Ser Asp Asp
          145             150             155             160

Leu Thr Glu Arg Ala Ala Thr Phe Gly Leu Ile Leu Asp Asp Val Ser
          165             170             175

Leu Thr His Leu Thr Phe Gly Lys Glu Phe Thr Glu Ala Val Glu Ala
          180             185             190

Lys Gln Val Ala Gln Gln Glu Ala Glu Arg Ala Arg Phe Val Val Glu
          195             200             205

Lys Ala Glu Gln Gln Lys Lys Ala Ala Ile Ile Ser Ala Glu Gly Asp
          210             215             220

Ser Lys Ala Ala Glu Leu Ile Ala Asn Ser Leu Ala Thr Ala Gly Asp
          225             230             235             240

Gly Leu Ile Glu Leu Arg Lys Leu Glu Ala Ala Glu Asp Ile Ala Tyr
          245             250             255

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## 4180

Gln Leu Ser Arg Ser Arg Asn Ile Thr Tyr Leu Pro Ala Gly Gln Ser  
                   260                                  265                                  270

Val Leu Leu Gln Leu Pro Gln  
                   275

<210> 4610

<211> 406

<212> PRT

<213> Homo sapiens

<400> 4610

Val Thr Ala Cys Ala Ala Pro Ala Ala Trp Leu Pro Ile Leu Val Ala  
   1                                  5                                  10                                  15

Asp Ile Trp Ser Ser Tyr Asn Met Ala Asp Ile Asp Asn Lys Glu Gln  
                   20                                  25                                  30

Ser Glu Leu Asp Gln Asp Leu Asp Asp Val Glu Glu Val Glu Glu Glu  
                   35                                  40                                  45

Glu Thr Gly Glu Glu Thr Lys Leu Lys Ala Arg Gln Leu Thr Val Gln  
                   50                                  55                                  60

Met Met Gln Asn Pro Gln Ile Leu Ala Ala Leu Gln Glu Arg Leu Asp  
   65                                  70                                  75                                  80

Gly Leu Val Glu Thr Pro Thr Gly Tyr Ile Glu Ser Leu Pro Arg Val  
                                   85                                  90                                  95

Val Lys Arg Arg Val Asn Ala Leu Lys Asn Leu Gln Val Lys Cys Ala  
                   100                                  105                                  110

Gln Ile Glu Ala Lys Phe Tyr Glu Glu Val His Asp Leu Glu Arg Lys  
                   115                                  120                                  125

Tyr Ala Val Leu Tyr Gln Pro Leu Phe Asp Lys Arg Phe Glu Ile Ile  
                   130                                  135                                  140

Asn Ala Ile Tyr Glu Pro Thr Glu Glu Glu Cys Glu Trp Lys Pro Asp  
   145                                  150                                  155                                  160

Glu Glu Asp Glu Ile Ser Glu Glu Leu Lys Glu Lys Ala Lys Ile Glu  
                   165                                  170                                  175

Asp Glu Lys Lys Asp Glu Glu Lys Glu Asp Pro Lys Gly Ile Pro Glu  
                   180                                  185                                  190

Phe Trp Leu Thr Val Phe Lys Asn Val Asp Leu Leu Ser Asp Met Val



## 4181

195	200	205
Gln Glu His Asp Glu Pro Ile Leu Lys His Leu Lys Asp Ile Lys Val		
210	215	220
Lys Phe Ser Asp Ala Gly Gln Pro Met Ser Phe Val Leu Glu Phe His		
225	230	235 240
Phe Glu Pro Asn Glu Tyr Phe Thr Asn Glu Val Leu Thr Lys Thr Tyr		
	245 250	255
Arg Met Arg Ser Glu Pro Asp Asp Ser Asp Pro Phe Ser Phe Asp Gly		
	260 265	270
Pro Glu Ile Met Gly Cys Thr Gly Cys Gln Ile Asp Trp Lys Lys Gly		
	275 280	285
Lys Asn Val Thr Leu Lys Thr Ile Lys Lys Lys Gln Lys His Lys Gly		
	290 295	300
Arg Gly Thr Val Arg Thr Val Thr Lys Thr Val Ser Asn Asp Ser Phe		
305	310	315 320
Phe Asn Phe Phe Ala Pro Pro Glu Val Pro Glu Ser Gly Asp Leu Asp		
	325 330	335
Asp Asp Ala Glu Ala Ile Leu Ala Ala Asp Phe Glu Ile Gly His Phe		
	340 345	350
Leu Arg Glu Arg Ile Ile Pro Arg Ser Val Leu Tyr Phe Thr Gly Glu		
	355 360	365
Ala Ile Glu Asp Asp Asp Asp Asp Tyr Asp Glu Glu Gly Glu Glu Ala		
	370 375	380
Asp Glu Gly Tyr Gln Leu Phe Glu Glu Val Lys Ser Cys Ser Lys Leu		
385	390 395	400
Phe Gln Arg Trp Leu Gln		
	405	

&lt;210&gt; 4611

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4611

Gly Val Val Lys Ser Leu Leu Phe Thr Arg Cys Asn Val Leu Val Pro
1 5 10 15

## 4182

Tyr Lys Gln Gly Trp Gly Gly Glu Gly Arg Ala Lys Thr Asn Ile Glu  
                   20                                  25                                  30

Ile Leu Lys Gln Gln Gln Ser Glu Trp Ile Leu Phe Phe Val Ile Val  
                   35                                  40                                  45

Gly Gly Leu Lys Asn Ser Pro His Val Ile Ile Val Asn Thr Leu Leu  
                   50                                  55                                  60

Cys Gly His Cys Asn Ile Trp Gly Val Gly Gln Gly Gly Lys Val Thr  
                   65                                  70                                  75                                  80

Ile Val His Met Ser Leu Ala Ser Val Gln Ser Ser Val Gln Asn Val  
                                   85                                  90                                  95

Met Leu Phe Cys Lys Lys Arg Phe Met Ile Phe Lys Ile Asn Leu Val  
                   100                                  105                                  110

Asn Leu Phe Leu Val Val Ile Phe Phe Leu Arg Gln Ser Phe  
                   115                                  120                                  125

<210> 4612

<211> 94

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4612

Gln Glu Leu Arg Ser Pro Ser Arg Ser Pro Ser Pro Pro Pro Lys Ser  
                   1                                  5                                  10                                  15

Pro Pro Trp Thr Thr Gly Gly Ser Leu Cys Glu Gln Leu Ala Phe Arg  
                   20                                  25                                  30

Lys Pro Leu Ser Val Phe Lys Gln Lys Val Glu Gly Ala Thr Lys Gln  
                   35                                  40                                  45

Ala Ala Val Arg Ala Ser Xaa Cys Arg Pro Leu Pro Cys Ser Ser Ser  
                   50                                  55                                  60

Ser Phe Ala Ser Ala Ser Ser Val Met Phe Cys Leu Glu Phe Tyr Leu  
                   65                                  70                                  75                                  80

Asp Phe Phe Ser Gly Tyr Phe Ser Val Phe Gln Pro Leu Leu

## 4183

85

90

&lt;210&gt; 4613

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4613

Lys	Lys	Ser	Leu	Arg	Cys	Glu	Tyr	Arg	Ile	Asp	Ile	Glu	Arg	Leu	Tyr
1				5					10					15	

Met	Ser	Lys	Thr	His	Leu	Ser	Ser	Ser	His	Arg	Pro	Leu	Gln	Ser	Gly
			20					25					30		

His	Val	Gly	Gln	Xaa	Gly	Thr	Gly	Ala	Gly	Asp	Ala	Pro	Pro	Gly	Gln
		35					40					45			

Asn	Ala	Pro	Phe	Val	Ala	Leu	Pro	Asp	Thr	Xaa	Tyr	Leu	Leu	Xaa	Lys
	50					55					60				

Arg	Glu	Thr	Gly	Ser
65				

&lt;210&gt; 4614

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4614

Asp	Pro	Arg	Thr	Met	Asn	Leu	Ala	Ile	Ser	Ile	Ala	Leu	Leu	Leu	Thr
1				5					10					15	

## 4184

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys  
                   20                                  25                                  30  
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser  
                   35                                  40                                  45  
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys  
                   50                                  55                                  60  
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser  
                   65                                  70                                  75                                  80  
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser  
                                   85                                  90                                  95  
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His  
                   100                                  105                                  110  
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg  
                   115                                  120                                  125  
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr  
                   130                                  135                                  140  
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr  
                   145                                  150                                  155                                  160  
 Asp Phe Met Ser Leu  
                                   165

&lt;210&gt; 4615

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4615

Ser Leu Cys Phe Ile Asp Gly Lys Tyr His Lys Gln Ile Lys Ile Glu  
   1                                  5                                  10                                  15  
 Glu Asn Ala Thr Gly Phe Ser Tyr Glu Ser Leu Phe Arg Glu Tyr Leu  
                   20                                  25                                  30  
 Asn Glu Thr Val Thr Glu Val Trp Ile Glu Asp Pro Tyr Ile Arg His  
                   35                                  40                                  45

## 4185

Thr His Gln Gly Ile Asp Gln Val Gln Gln Ser Arg Gly Leu Gln Glu  
 50 55 60

Ile Glu Glu Ser Leu Arg Ser His Gly Ser Ala Xaa Gly Arg Ser Ile  
 65 70 75 80

Leu Phe Phe Asn Thr  
 85

<210> 4616

<211> 366

<212> PRT

<213> Homo sapiens

<400> 4616

Pro Gly Ser Thr His Ala Ser Gly Lys Ile Gln Asn Lys Trp Leu Arg  
 1 5 10 15

Pro Ser Pro Arg Ser His Arg Thr Pro Glu Ser Gly Arg Val Leu Ser  
 20 25 30

Leu Phe Arg Leu Pro Pro Pro Gly Met Ala Leu Ser Gly Ser Thr Pro  
 35 40 45

Ala Pro Cys Trp Glu Glu Asp Glu Cys Leu Asp Tyr Tyr Gly Met Leu  
 50 55 60

Ser Leu His Arg Met Phe Glu Val Val Gly Gly Gln Leu Thr Glu Cys  
 65 70 75 80

Glu Leu Glu Leu Leu Ala Phe Leu Leu Asp Glu Ala Pro Gly Ala Ala  
 85 90 95

Gly Gly Leu Ala Arg Ala Arg Ser Gly Leu Glu Leu Leu Leu Glu Leu  
 100 105 110

Glu Arg Arg Gly Gln Cys Asp Glu Ser Asn Leu Arg Leu Leu Gly Gln  
 115 120 125

Leu Leu Arg Val Leu Ala Arg His Asp Leu Leu Pro His Leu Ala Arg  
 130 135 140

Lys Arg Arg Arg Pro Val Ser Pro Glu Arg Tyr Ser Tyr Gly Thr Ser  
 145 150 155 160

Ser Ser Ser Lys Arg Thr Glu Gly Ser Cys Arg Arg Arg Arg Gln Ser  
 165 170 175

## 4186

Ser Ser Ser Ala Asn Ser Gln Gln Gly Gln Trp Glu Thr Gly Ser Pro  
 180 185 190

Pro Thr Lys Arg Gln Arg Arg Ser Arg Gly Arg Pro Ser Gly Gly Ala  
 195 200 205

Arg Arg Arg Arg Arg Gly Ala Pro Ala Ala Pro Gln Gln Gln Ser Glu  
 210 215 220

Pro Ala Arg Pro Ser Ser Glu Gly Lys Val Thr Cys Asp Ile Arg Leu  
 225 230 235 240

Arg Val Arg Ala Glu Tyr Cys Glu His Gly Pro Ala Leu Glu Gln Gly  
 245 250 255

Val Ala Ser Arg Arg Pro Gln Ala Leu Ala Arg Gln Leu Asp Val Phe  
 260 265 270

Gly Gln Ala Thr Ala Val Leu Arg Ser Arg Asp Leu Gly Ser Val Val  
 275 280 285

Cys Asp Ile Lys Phe Ser Glu Leu Ser Tyr Leu Asp Ala Phe Trp Gly  
 290 295 300

Asp Tyr Leu Ser Gly Ala Leu Leu Gln Ala Leu Arg Gly Val Phe Leu  
 305 310 315 320

Thr Glu Ala Leu Arg Glu Ala Val Gly Arg Glu Ala Val Arg Leu Leu  
 325 330 335

Val Ser Val Asp Glu Ala Asp Tyr Glu Ala Gly Arg Arg Arg Leu Leu  
 340 345 350

Leu Met Glu Glu Glu Gly Gly Arg Arg Pro Thr Glu Ala Ser  
 355 360 365

<210> 4617

<211> 482

<212> PRT

<213> Homo sapiens

<400> 4617

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr  
 1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Met Val Leu Gln  
 20 25 30

Thr Thr Lys Gly Leu Arg Leu Leu Phe Asp Gly Asp Ala His Leu Leu

35

45

BNSDOCID: <WO\_\_0122920A2\_I\_>

305				310				315				320			
Thr	Thr	Phe	Asp	Gly	Ala	Arg	Gly	Ala	Thr	Thr	Ser	Pro	Gly	Val	Tyr
				325				330				335			
Glu	Leu	Ser	Ser	Arg	Cys	Pro	Gly	Leu	Gln	Asn	Thr	Ile	Pro	Trp	Tyr
				340				345				350			
Arg	Val	Val	Ala	Glu	Val	Gln	Ile	Cys	His	Gly	Lys	Thr	Glu	Ala	Val
				355				360				365			
Gly	Gln	Val	His	Ile	Phe	Phe	Gln	Asp	Gly	Met	Val	Thr	Leu	Thr	Pro
				370				375				380			
Asn	Lys	Gly	Val	Trp	Val	Asn	Gly	Leu	Arg	Val	Asp	Leu	Pro	Ala	Glu
385				390				395				400			
Lys	Leu	Ala	Ser	Val	Ser	Val	Ser	Arg	Thr	Pro	Asp	Gly	Ser	Leu	Leu
				405				410				415			
Val	Arg	Gln	Lys	Ala	Gly	Val	Gln	Val	Trp	Leu	Gly	Ala	Asn	Gly	Lys
				420				425				430			
Val	Ala	Val	Ile	Val	Ser	Asn	Asp	His	Ala	Gly	Lys	Leu	Cys	Gly	Ala
				435				440				445			
Cys	Gly	Asn	Phe	Asp	Gly	Asp	Gln	Thr	Asn	Asp	Trp	His	Asp	Ser	Gln
				450				455				460			
Glu	Lys	Pro	Ala	Met	Glu	Lys	Trp	Arg	Ala	Gln	Asp	Phe	Ser	Pro	Cys
465				470				475				480			
Tyr	Gly														

<213> Homo sapiens

Val Ile Arg Lys Lys Tyr Pro Thr Asp Gly Ser Glu Ile Val Leu Leu  
35 40 45



## 4189

Thr	Asp	Gly	Glu	Asp	Asn	Thr	Ile	Ser	Gly	Cys	Phe	Asn	Glu	Val	Lys	50	55	60	
Gln	Ser	Gly	Ala	Ile	Ile	His	Thr	Val	Ala	Leu	Gly	Pro	Ser	Ala	Ala	65	70	75	80
Gln	Glu	Leu	Glu	Glu	Leu	Ser	Lys	Met	Thr	Gly	Gly	Leu	Gln	Thr	Tyr	85	90	95	
Ala	Ser	Asp	Gln	Val	Gln	Asn	Asn	Gly	Leu	Ile	Asp	Ala	Phe	Gly	Ala	100	105	110	
Leu	Ser	Ser	Gly	Asn	Gly	Ala	Val	Ser	Gln	Arg	Ser	Ile	Gln	Leu	Glu	115	120	125	
Ser	Lys	Gly	Leu	Thr	Leu	Gln	Asn	Ser	Gln	Trp	Met	Asn	Gly	Thr	Val	130	135	140	
Ile	Val	Asp	Ser	Thr	Val	Gly	Lys	Asp	Thr	Leu	Phe	Leu	Ile	Thr	Trp	145	150	155	160
Thr	Thr	Gln	Pro	Pro	Gln	Ile	Leu	Leu	Trp	Asp	Pro	Ser	Gly	Gln	Lys	165	170	175	
Gln	Gly	Gly	Phe	Val	Val	Asp	Lys	Asn	Thr	Lys	Met	Ala	Tyr	Leu	Gln	180	185	190	
Ile	Pro	Gly	Ile	Ala	Lys	Val	Gly	Thr	Trp	Lys	Tyr	Ser	Leu	Gln	Ala	195	200	205	
Ser	Ser	Gln	Thr	Leu	Thr	Leu	Thr	Val	Thr	Ser	Arg	Ala	Ser	Asn	Ala	210	215	220	
Thr	Leu	Pro	Pro	Ile	Thr	Val	Thr	Ser	Lys	Thr	Asn	Lys	Asp	Thr	Ser	225	230	235	240
Lys	Phe	Pro	Ser	Pro	Leu	Val	Val	Tyr	Ala	Asn	Ile	Arg	Gln	Gly	Ala	245	250	255	
Ser	Pro	Ile	Leu	Arg	Ala	Ser	Val	Thr	Ala	Leu	Ile	Glu	Ser	Val	Asn	260	265	270	
Gly	Lys	Thr	Val	Thr	Leu	Glu	Leu	Leu	Asp	Asn	Gly	Ala	Gly	Ala	Asp	275	280	285	
Ala	Thr	Lys	Asp	Asp	Gly	Val	Tyr	Ser	Arg	Tyr	Phe	Thr	Thr	Tyr	Asp	290	295	300	
Thr	Asn	Gly	Arg	Tyr	Ser	Val	Lys	Val	Arg	Ala	Leu	Gly	Gly	Val	Asn	305	310	315	320

## 4190

Ala Ala Arg Arg Arg Val Ile Pro Gln Gln Ser Gly Ala Leu Tyr Ile  
 325 330 335  
 Pro Gly Trp Ile Glu Asn Asp Glu Ile Gln Trp Asn Pro Pro Arg Pro  
 340 345 350  
 Glu Ile Asn Lys Asp Asp Val Gln His Lys Gln Val Cys Phe Ser Arg  
 355 360 365  
 Thr Ser Ser Gly Gly Ser Phe Val Ala Ser Asp Val Pro Asn Ala Pro  
 370 375 380  
 Ile Pro Asp Leu Phe Pro Pro Gly Gln Ile Thr Asp Leu Lys Ala Glu  
 385 390 395 400  
 Ile His Gly Gly Ser Leu Ile Asn Leu Thr Trp Thr Ala Pro Gly Asp  
 405 410 415  
 Asp Tyr Asp His Gly Thr Ala His Lys Tyr Ile Ile Arg Ile Ser Thr  
 420 425 430  
 Ser Ile Leu Asp Leu Arg Asp Lys Phe Asn Glu Ser Leu Gln Val Asn  
 435 440 445  
 Thr Thr Ala Leu Ile Pro Lys Glu Ala Asn Ser Glu Glu Val Phe Leu  
 450 455 460  
 Phe Lys Pro Glu Thr Ile Thr Phe Glu Asn Gly Thr Asp Leu Phe Ile  
 465 470 475 480  
 Ala Ile Gln Ala Val Asp Lys Val Asp Leu Lys Ser Glu Ile Ser Asn  
 485 490 495  
 Ile Ala Arg Val Ser Leu Phe Ile Pro Pro Gln Thr Pro Pro Glu Thr  
 500 505 510  
 Pro Ser Pro Asp Glu Thr Ser Ala Pro Cys Pro Asn Ile His Ile Asn  
 515 520 525  
 Ser Thr Ile Pro Gly Ile His Ile Leu Lys Ile Met Trp Lys Trp Ile  
 530 535 540  
 Gly Glu Leu Gln Leu Ser Ile Ala  
 545 550

&lt;210&gt; 4619

&lt;211&gt; 501

&lt;212&gt; PRT

4191

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (179)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4619

Gly Thr Ser Gly Gly Gly Ala Gly Ala Met Ala Val Leu Leu Glu Thr  
 1 5 10 15

Thr Leu Gly Asp Val Val Ile Asp Leu Tyr Thr Glu Glu Arg Pro Arg  
 20 25 30

Ala Cys Leu Asn Phe Leu Lys Leu Cys Lys Ile Lys Tyr Tyr Asn Tyr  
 35 40 45

Cys Leu Ile His Asn Val Gln Arg Asp Phe Ile Ile Gln Thr Gly Asp  
 50 55 60

Pro Thr Gly Thr Gly Arg Gly Gly Glu Ser Ile Phe Gly Gln Leu Tyr  
 65 70 75 80

Gly Asp Gln Ala Ser Phe Phe Glu Ala Glu Lys Val Pro Arg Ile Lys  
 85 90 95

His Lys Lys Lys Gly Thr Val Ser Met Val Asn Asn Gly Ser Asp Gln  
 100 105 110

His Gly Ser Gln Phe Leu Ile Thr Thr Gly Glu Asn Leu Asp Tyr Leu  
 115 120 125

Asp Gly Val His Thr Val Phe Gly Glu Val Thr Glu Gly Met Asp Ile  
 130 135 140

Ile Lys Lys Ile Asn Glu Thr Phe Val Asp Lys Asp Phe Val Pro Tyr  
 145 150 155 160

Gln Asp Ile Arg Ile Asn His Thr Val Ile Leu Asp Asp Pro Phe Asp  
 165 170 175

Asp Pro Xaa Asp Leu Leu Ile Pro Asp Arg Ser Pro Glu Pro Thr Arg  
 180 185 190

Glu Gln Leu Asp Ser Gly Arg Ile Gly Ala Asp Glu Glu Ile Asp Asp  
 195 200 205

Phe Lys Gly Arg Ser Ala Glu Glu Val Glu Glu Ile Lys Ala Glu Lys  
 210 215 220

Glu Ala Lys Thr Gln Ala Ile Leu Leu Glu Met Val Gly Asp Leu Pro

## 4192

225		230		235		240
Asp Ala Asp Ile Lys Pro Pro Glu Asn Val Leu Phe Val Cys Lys Leu	245		250		255	
Asn Pro Val Thr Thr Asp Glu Asp Leu Glu Ile Ile Phe Ser Arg Phe	260		265		270	
Gly Pro Ile Arg Ser Cys Glu Val Ile Arg Asp Trp Lys Thr Gly Glu	275		280		285	
Ser Leu Cys Tyr Ala Phe Ile Glu Phe Glu Lys Glu Glu Asp Cys Glu	290		295		300	
Lys Ala Phe Phe Lys Met Asp Asn Val Leu Ile Asp Asp Arg Arg Ile	305		310		315	320
His Val Asp Phe Ser Gln Ser Val Ala Lys Val Lys Trp Lys Gly Lys	325		330		335	
Gly Gly Lys Tyr Thr Lys Ser Asp Phe Lys Glu Tyr Glu Lys Glu Gln	340		345		350	
Asp Lys Pro Pro Asn Leu Val Leu Lys Asp Lys Val Lys Pro Lys Gln	355		360		365	
Asp Thr Lys Tyr Asp Leu Ile Leu Asp Glu Gln Ala Glu Asp Ser Lys	370		375		380	
Ser Ser His Ser His Thr Ser Lys Lys His Lys Lys Lys Thr His His	385		390		395	400
Cys Ser Glu Glu Lys Glu Asp Glu Asp Tyr Met Pro Ile Lys Asn Thr	405		410		415	
Asn Gln Asp Ile Tyr Arg Glu Met Gly Phe Gly His Tyr Glu Glu Glu	420		425		430	
Glu Ser Cys Trp Glu Lys Gln Lys Ser Glu Lys Arg Asp Arg Thr Gln	435		440		445	
Asn Arg Ser Arg Ser Arg Ser Arg Glu Arg Asp Gly His Tyr Ser Asn	450		455		460	
Ser His Lys Ser Lys Tyr Gln Thr Asp Leu Tyr Glu Arg Glu Arg Ser	465		470		475	480
Lys Lys Arg Asp Arg Ser Arg Ser Pro Lys Lys Ser Lys Asp Lys Glu	485		490		495	
Lys Ser Lys Tyr Arg						

4193

500

&lt;210&gt; 4620

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4620

Asn Phe Leu Leu Phe Thr Asn Ser Asp Glu Ile Gln Phe Phe Arg Arg  
 1 5 10 15

Leu Ser Phe Leu Glu Gln Ala Thr Ser Leu Pro Leu Glu Cys Pro Ile  
 20 25 30

Thr Tyr Ser Ser Thr Phe Ser Phe Cys Ser Arg Cys Leu Leu Lys Arg  
 35 40 45

Ser Gly Ala Val Gly Gly Tyr Ala His Leu Ser Ser Ser Val Gln  
 50 55 60

&lt;210&gt; 4621

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4621

Ser Gln His Phe Gly Arg Pro Arg Trp Thr Asp His Leu Arg Ser Gly  
 1 5 10 15

Val Arg Asp Gln Pro Gly Gln His Gly Gln Thr Trp Ser Leu Leu Lys  
 20 25 30

Ile Gln Lys Leu Ala Gly Val Ala Arg Cys Arg Ala Val Trp Gly Arg  
 35 40 45

His Gly  
 50

&lt;210&gt; 4622

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4622

Gly Thr Arg Trp Pro Cys Gly Lys His Lys Arg Val Leu Ile Phe Pro

## 4194

1                      5                      10                      15  
 Ser Tyr Met Thr Thr Val Ile Asp Tyr Val Lys Pro Ser Asp Leu Lys  
                          20                      25                      30  
 Lys Asp Met Asn Glu Thr Phe Lys Glu Lys Phe Pro His Ile Lys Leu  
                          35                      40                      45  
 Thr Leu Ser Lys Ile Arg Ser Leu Lys Arg Glu Met Arg Asn Leu Arg  
                          50                      55                      60  
 Arg Arg Thr Val Ala Leu Arg Ser Pro Arg Trp Pro Trp Pro Arg Leu  
                          65                      70                      75                      80  
 Leu

&lt;210&gt; 4623

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4623

Ser Gln His Phe Leu Ser Leu Pro Leu Trp Phe Glu Gly Tyr Gly Leu  
 1                      5                      10                      15  
 Leu Gln Tyr Ile Ser Ser Phe Lys Ser Cys His Cys Phe Val Gly Pro  
                          20                      25                      30  
 Gln Leu Ile Gly Pro Gln Asn Lys Pro Cys Cys Phe Ala His Thr Leu  
                          35                      40                      45  
 Ala Phe Phe Cys Thr Phe His Ser Gly Trp Ala Trp Pro Lys Gln Ala  
                          50                      55                      60  
 Gln Ala Lys Asp Leu Pro Ser Cys Met Tyr Phe Gln Tyr Pro Glu Thr  
                          65                      70                      75                      80  
 Val Phe Gly Asp Ile Met Pro Arg Val Asn Lys Pro Asp Leu Gly Thr  
                          85                      90                      95  
 Ala Leu Ser Arg Gly Phe Thr His Glu Ile Asn Lys Thr Tyr Leu Ser  
                          100                      105                      110  
 His Leu Lys Leu Gly Ser Gln Lys Thr His Phe Trp Phe Ile Ile Ser  
                          115                      120                      125  
 Phe Tyr Ala His Leu Thr Leu Ile Ile Tyr Pro  
                          130                      135

4195

<210> 4624  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 4624  
 Gly Thr Arg Arg His Pro Ala Pro Ser Ala Gly Cys Ala Ser Gly Ala  
 1 5 10 15  
 Glu Val Arg Asp Lys Met Val Pro Pro Val Gln Val Ser Pro Leu Ile  
 20 25 30  
 Lys Leu Gly Arg Tyr Ser Ala Leu Phe Leu Gly Val Ala Tyr Gly Ala  
 35 40 45  
 Thr Arg Tyr Asn Tyr Leu Lys Pro Arg Ala Glu Glu Glu Arg Arg Ile  
 50 55 60  
 Ala Ala Glu Glu Lys Lys Lys Gln Asp Glu Leu Lys Arg Ile Ala Arg  
 65 70 75 80  
 Glu Leu Ala Glu Asp Asp Ser Ile Leu Lys  
 85 90

<210> 4625  
 <211> 328  
 <212> PRT  
 <213> Homo sapiens

<400> 4625  
 Gln Ala Thr Gly Gly Pro Glu Leu Ala Ser Ser Val Leu Ser Pro Leu  
 1 5 10 15  
 Leu Asn Lys Asp Thr Ile Asp Phe Leu Asn Tyr Thr Val Asn Gly Asp  
 20 25 30  
 Glu Arg Gln Leu Trp Met Ser Leu Gly Gly Thr Trp Met Lys Ala Arg  
 35 40 45  
 Ala Glu Trp Pro Lys Glu Gln Phe Ile Pro Pro Tyr Val Pro Arg Phe  
 50 55 60  
 Arg Asn Gly Trp Glu Pro Pro Met Leu Asn Phe Met Gly Ala Thr Met  
 65 70 75 80  
 Glu Gln Asp Leu Tyr Gln Leu Ala Glu Ser Val Ala Asn Val Ala Glu

## 4196

	85		90		95
His Gln Arg Lys Gln Glu Ile Lys Arg Leu Ser Thr Glu His Ser Ser	100		105		110
Val Ser Glu Tyr His Pro Ala Asp Gly Tyr Ala Phe Ser Ser Asn Ile	115		120		125
Tyr Thr Arg Gly Ser His Leu Asp Gln Gly Glu Ala Ala Val Ala Phe	130		135		140
Lys Pro Thr Ser Asn Arg His Ile Asp Arg Asn Tyr Glu Pro Leu Lys	145		150		155
Thr Gln Pro Lys Lys Tyr Ala Lys Ser Lys Tyr Asp Phe Val Ala Arg	165		170		175
Asn Asn Ser Glu Leu Ser Val Leu Lys Asp Asp Ile Leu Glu Ile Leu	180		185		190
Asp Asp Arg Lys Gln Trp Trp Lys Val Arg Asn Ala Ser Gly Asp Ser	195		200		205
Gly Phe Val Pro Asn Asn Ile Leu Asp Ile Val Arg Pro Pro Glu Ser	210		215		220
Gly Leu Gly Arg Ala Asp Pro Pro Tyr Thr His Thr Ile Gln Lys Gln	225		230		235
Arg Met Glu Tyr Gly Pro Arg Pro Ala Asp Thr Pro Pro Ala Pro Ser	245		250		255
Pro Pro Pro Thr Pro Ala Pro Val Pro Val Pro Leu Pro Pro Ser Thr	260		265		270
Pro Ala Pro Val Pro Val Ser Lys Val Pro Ala Asn Ile Thr Arg Gln	275		280		285
Asn Ser Ser Ser Ser Asp Ser Gly Gly Ser Ile Val Arg Asp Ser Gln	290		295		300
Arg His Lys Gln Leu Pro Val Asp Arg Arg Asn Leu Arg Trp Arg Lys	305		310		315
Cys Lys Met Asn Ser Ser Thr Asp	325				

&lt;210&gt; 4626

&lt;211&gt; 578



4197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4626

Gly	Val	Gly	Asp	Gly	Gln	Ala	Pro	Met	Pro	Gly	Xaa	Thr	Glu	Glu	Pro
1				5					10					15	

Arg	Pro	Pro	Glu	Gln	Gln	Asp	Gln	Glu	Gly	Gly	Glu	Ala	Ala	Lys	Ala
			20					25					30		

Ala	Pro	Glu	Xaa	Pro	Gln	Gln	Arg	Pro	Pro	Glu	Ala	Val	Ala	Ala	Ala
		35					40					45			

Pro	Ala	Gly	Thr	Thr	Ser	Ser	Arg	Val	Leu	Arg	Gly	Gly	Arg	Asp	Arg
	50					55					60				

Gly	Arg	Ala	Ala	Ala	Ala	Arg	Arg	Arg	Xaa	Ser	Cys	Val	Pro	Pro	Glu
65					70					75					80

Xaa	Gly	Arg	Val	Ser	Pro	Pro	Ala	Xaa	Glu	Gln	Pro	Gln	Arg	Gln	Ala
				85					90					95	

Ser	Arg	Arg	Pro	Arg	Ala	Ala	Ala	Gln	Ala	Ala	Lys	Ser	Pro	Ser	Pro
			100					105					110		

Val	Gln	Gly	Lys	Lys	Ser	Pro	Arg	Leu	Leu	Cys	Ile	Glu	Lys	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4198

115	120	125
Thr Asp Lys Asp Pro Lys Glu Glu Lys Glu Glu Glu Asp Asp Ser Ala		
130	135	140
Leu Pro Gln Glu Val Ser Ile Ala Ala Ser Arg Pro Ser Arg Gly Trp		
145	150	155
		160
Arg Ser Ser Arg Thr Ser Val Ser Arg His Arg Asp Thr Glu Asn Thr		
	165	170
		175
Arg Ser Ser Arg Ser Lys Thr Gly Ser Leu Gln Leu Ile Cys Lys Ser		
	180	185
		190
Glu Pro Asn Thr Asp Gln Leu Asp Tyr Asp Val Gly Glu Glu His Gln		
	195	200
		205
Ser Pro Gly Gly Ile Ser Ser Glu Glu Glu Glu Glu Glu Glu Glu		
210	215	220
Met Leu Ile Ser Glu Glu Glu Ile Pro Phe Lys Asp Asp Pro Arg Asp		
225	230	235
		240
Glu Thr Tyr Lys Pro His Leu Glu Arg Glu Thr Pro Lys Pro Arg Arg		
	245	250
		255
Lys Ser Gly Lys Val Lys Glu Glu Lys Glu Lys Lys Glu Ile Lys Val		
	260	265
		270
Glu Val Glu Val Glu Val Lys Glu Glu Glu Asn Glu Ile Arg Glu Asp		
	275	280
		285
Glu Glu Pro Pro Arg Lys Arg Gly Arg Arg Arg Lys Asp Asp Lys Ser		
	290	295
		300
Pro Arg Leu Pro Lys Arg Arg Lys Lys Pro Pro Ile Gln Tyr Val Arg		
305	310	315
		320
Cys Glu Met Glu Gly Cys Gly Thr Val Leu Ala His Pro Arg Tyr Leu		
	325	330
		335
Gln His His Ile Lys Tyr Gln His Leu Leu Lys Lys Lys Tyr Val Cys		
	340	345
		350
Pro His Pro Ser Cys Gly Arg Leu Phe Arg Leu Gln Lys Gln Leu Leu		
	355	360
		365
Arg His Ala Lys His His Thr Asp Gln Arg Asp Tyr Ile Cys Glu Tyr		
	370	375
		380
Cys Ala Arg Ala Phe Lys Ser Ser His Asn Leu Ala Val His Arg Met		

## 4199

385                      390                      395                      400  
 Ile His Thr Gly Glu Lys Pro Leu Gln Cys Glu Ile Cys Gly Phe Thr  
                                  405                                   410                                   415  
 Cys Arg Gln Lys Ala Ser Leu Asn Trp His Met Lys Lys His Asp Ala  
                                  420                                   425                                   430  
 Asp Ser Phe Tyr Gln Phe Ser Cys Asn Ile Cys Gly Lys Lys Phe Glu  
                                  435                                   440                                   445  
 Lys Lys Asp Ser Val Val Ala His Lys Ala Lys Ser His Pro Glu Val  
                                  450                                   455                                   460  
 Leu Ile Ala Glu Ala Leu Ala Ala Asn Ala Gly Ala Leu Ile Thr Ser  
 465                                   470                                   475                                   480  
 Thr Asp Ile Leu Gly Thr Asn Pro Glu Ser Leu Thr Gln Pro Ser Asp  
                                  485                                   490                                   495  
 Gly Gln Gly Leu Pro Leu Leu Pro Glu Pro Leu Gly Asn Ser Thr Ser  
                                  500                                   505                                   510  
 Gly Glu Cys Leu Leu Leu Glu Ala Glu Gly Met Ser Lys Ser Tyr Cys  
                                  515                                   520                                   525  
 Ser Gly Thr Glu Arg Val Ser Leu Met Ala Asp Gly Lys Ile Phe Val  
                                  530                                   535                                   540  
 Gly Ser Gly Ser Ser Gly Gly Thr Glu Gly Leu Val Met Asn Ser Asp  
 545                                   550                                   555                                   560  
 Ile Leu Gly Ala Thr Thr Glu Val Leu Ile Glu Asp Ser Asp Ser Ala  
                                  565                                   570                                   575  
 Gly Pro

&lt;210&gt; 4627

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4627

Lys Ile Met Ala Ser Pro Asp Trp Gly Tyr Asp Asp Lys Asn Gly Pro  
 1                                   5                                   10                                   15

Glu Gln Trp Ser Lys Leu Tyr Pro Ile Ala Asn Gly Asn Asn Gln Ser  
                                  20                                   25                                   30

## 4200

Pro Val Asp Ile Lys Thr Ser Glu Thr Lys His Asp Thr Ser Leu Lys  
           35                          40                          45  
 Pro Ile Ser Val Ser Tyr Asn Pro Ala Thr Ala Lys Glu Ile Ile Asn  
           50                          55                          60  
 Val Gly His Ser Phe His Val Asn Phe Glu Asp Asn Asp Asn Arg Ser  
       65                          70                          75                          80  
 Val Leu Lys Gly Gly Pro Phe Ser Asp Ser Tyr Arg Leu Phe Gln Phe  
                           85                          90                          95  
 His Phe His Trp Gly Ser Thr Asn Glu His Gly Ser Glu His Thr Val  
                           100                          105                          110  
 Asp Gly Val Lys Tyr Ser Ala Glu Leu His Val Ala His Trp Asn Ser  
           115                          120                          125  
 Ala Lys Tyr Ser Ser Leu Ala Glu Ala Ala Ser Lys Ala Asp Gly Leu  
           130                          135                          140  
 Ala Val Ile Gly Val Leu Met Lys Val Gly Glu Ala Asn Pro Lys Leu  
       145                          150                          155                          160  
 Gln Lys Val Leu Asp Ala Leu Gln Ala Ile Lys Thr Lys Gly Lys Arg  
                           165                          170                          175  
 Ala Pro Phe Thr Asn Phe Asp Pro Ser Thr Leu Leu Pro Ser Ser Leu  
           180                          185                          190  
 Asp Phe Trp Thr Tyr Pro Gly Ser Leu Thr His Pro Pro Leu Tyr Glu  
           195                          200                          205  
 Ser Val Thr Trp Ile Ile Cys Lys Glu Ser Ile Ser Val Ser Ser Glu  
       210                          215                          220  
 Gln Leu Ala Gln Phe Arg Ser Leu Leu Ser Asn Val Glu Gly Asp Asn  
       225                          230                          235                          240  
 Ala Val Pro Met Gln His Asn Asn Arg Pro Thr Gln Pro Leu Lys Gly  
                           245                          250                          255  
 Arg Thr Val Arg Ala Ser Phe  
           260

&lt;210&gt; 4628

&lt;211&gt; 301

&lt;212&gt; PRT

## 4201

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (156)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (185)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4628

Ala	Asp	Ala	Trp	Gly	Arg	Thr	Ala	Glu	Leu	Thr	Val	Thr	Ala	Ala	Leu
1				5					10					15	

Thr	Arg	Glu	Phe	Leu	Glu	Pro	Lys	Leu	Phe	Ser	Thr	Glu	Asp	Lys	Gln
		20						25					30		

Ala	Ala	Glu	Thr	Met	Gly	Ser	Pro	Ser	Ala	Cys	Pro	Tyr	Arg	Val	Cys
		35					40					45			

Ile	Pro	Trp	Gln	Gly	Leu	Leu	Leu	Thr	Ala	Ser	Leu	Leu	Thr	Phe	Trp
	50					55					60				

Asn	Leu	Pro	Asn	Ser	Ala	Gln	Thr	Asn	Ile	Asp	Val	Val	Pro	Phe	Asn
65					70					75					80

Val	Ala	Glu	Gly	Lys	Glu	Val	Leu	Leu	Val	Val	His	Asn	Glu	Ser	Gln
				85					90					95	

Asn	Leu	Tyr	Gly	Tyr	Asn	Trp	Tyr	Lys	Gly	Glu	Arg	Val	His	Ala	Asn
		100						105					110		

Tyr	Arg	Ile	Ile	Gly	Tyr	Val	Lys	Asn	Ile	Ser	Gln	Glu	Asn	Ala	Pro
		115					120					125			

Gly	Pro	Ala	His	Asn	Gly	Arg	Glu	Thr	Ile	Tyr	Pro	Asn	Gly	Thr	Leu
	130					135					140				

Leu	Ile	Gln	Asn	Val	Thr	His	Asn	Asp	Ala	Gly	Xaa	Tyr	Thr	Leu	His
145					150					155					160

Val	Ile	Lys	Glu	Asn	Leu	Val	Asn	Glu	Glu	Val	Thr	Arg	Gln	Phe	Tyr
				165				170						175	

Val	Phe	Ser	Glu	Pro	Pro	Lys	Pro	Xaa	Ile	Thr	Ser	Asn	Asn	Phe	Asn
			180					185						190	

Pro	Val	Glu	Asn	Lys	Asp	Ile	Val	Val	Leu	Thr	Cys	Gln	Pro	Glu	Thr
			195				200					205			

## 4202

Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Leu Val  
210 215 220

Ser Pro Arg Leu Leu Leu Ser Thr Asp Asn Arg Thr Leu Val Leu Leu  
225 230 235 240

Ser Ala Thr Lys Asn Asp Ile Gly Pro Tyr Glu Cys Glu Ile Gln Asn  
245 250 255

Pro Val Gly Ala Ser Arg Ser Asp Pro Val Thr Leu Asn Val Arg Tyr  
260 265 270

Glu Ser Val Gln Ala Ser Ser Pro Asp Leu Ser Ala Gly Thr Ala Val  
275 280 285

Ser Ile Met Ile Gly Val Leu Ala Gly Met Ala Leu Ile  
290 295 300

<210> 4629

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4629

Pro Ala Gly Ala Gly Cys Arg Ala Gly Glu Arg Ala Gly Gln Ala Lys  
1 5 10 15

Ala Leu Val Pro Ala Arg Cys Gly Pro Gln Ser Ala Ala Met Gly Ala  
20 25 30

Ser Ala Arg Leu Leu Arg Ala Val Ile Met Gly Ala Pro Gly Ser Gly  
35 40 45

Lys Gly Thr Val Ser Ser Arg Ile Thr Thr His Phe Glu Leu Lys His  
50 55 60

Leu Ser Ser Gly Asp Leu Leu Arg Asp Asn Met Leu Arg Gly Thr Glu  
65 70 75 80

Ile Gly Val Leu Ala Lys Ala Phe Ile Asp Gln Gly Lys Leu Ile Pro  
85 90 95

Asp Asp Val Met Thr Arg Leu Ala Leu His Glu Leu Lys Asn Leu Thr  
100 105 110

Gln Tyr Ser Trp Leu Leu Asp Gly Phe Pro Arg Thr Leu Pro Gln Ala  
115 120 125

## 4203

Glu Ala Leu Asp Arg Ala Tyr Gln Ile Asp Thr Val Ile Asn Leu Asn  
 130 135 140  
 Val Pro Phe Glu Val Ile Lys Gln Arg Leu Thr Ala Arg Trp Ile His  
 145 150 155 160  
 Pro Ala Ser Gly Arg Val Tyr Asn Ile Glu Phe Asn Pro Pro Lys Thr  
 165 170 175  
 Val Gly Ile Asp Asp Leu Thr Gly Glu Pro Leu Ile Gln Arg Glu Asp  
 180 185 190  
 Asp Lys Pro Glu Thr Val Ile Lys Arg Leu Lys Ala Tyr Glu Asp Gln  
 195 200 205  
 Thr Lys Pro Val Leu Glu Tyr Tyr Gln Lys Lys Gly Val Leu Glu Thr  
 210 215 220  
 Phe Ser Gly Thr Glu Thr Asn Lys Ile Trp Pro Tyr Val Tyr Ala Phe  
 225 230 235 240  
 Leu Gln Thr Lys Val Pro Gln Arg Ser Gln Lys Ala Ser Val Thr Pro  
 245 250 255

<210> 4630  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 4630  
 Asp Trp Gly Leu Ala Arg Ser Arg Pro Gly Cys Lys Cys Cys Gly Gly  
 1 5 10 15  
 Arg Lys Ser Arg Pro His Arg Arg Gly Ser Ala Val Met Pro Lys Tyr  
 20 25 30  
 Tyr Glu Asp Lys Pro Gln Ala Ala Arg Cys Ala Gly Leu Lys Glu Asp  
 35 40 45  
 Leu Gly Ala Cys Leu Leu Gln Ser Asp Cys Val Val Gln Glu Gly Lys  
 50 55 60  
 Ser Pro Arg Gln Cys Leu Lys Glu Gly Tyr Cys Asn Ser Leu Lys Tyr  
 65 70 75 80  
 Ala Phe Phe Glu Cys Lys Arg Ser Val Leu Asp Asn Arg Ala Arg Phe

## 4204

85	90	95													
Arg Gly Arg Lys Gly Tyr															
100															
<210> 4631															
<211> 466															
<212> PRT															
<213> Homo sapiens															
<400> 4631															
Glu	His	Gln	Glu	Ile	Met	Asn	Asn	Phe	Gly	Asn	Glu	Glu	Phe	Asp	Cys
1				5					10					15	
His	Phe	Leu	Asp	Glu	Gly	Phe	Thr	Ala	Lys	Asp	Ile	Leu	Asp	Gln	Lys
			20					25					30		
Ile	Asn	Glu	Val	Ser	Ser	Ser	Asp	Asp	Lys	Asp	Ala	Phe	Tyr	Val	Ala
		35					40					45			
Asp	Leu	Gly	Asp	Ile	Leu	Lys	Lys	His	Leu	Arg	Trp	Leu	Lys	Ala	Leu
	50					55				60					
Pro	Arg	Val	Thr	Pro	Phe	Tyr	Ala	Val	Lys	Cys	Asn	Asp	Ser	Lys	Ala
65					70					75					80
Ile	Val	Lys	Thr	Leu	Ala	Ala	Thr	Gly	Thr	Gly	Phe	Asp	Cys	Ala	Ser
				85				90						95	
Lys	Thr	Glu	Ile	Gln	Leu	Val	Gln	Ser	Leu	Gly	Val	Pro	Pro	Glu	Arg
		100					105						110		
Ile	Ile	Tyr	Ala	Asn	Pro	Cys	Lys	Gln	Val	Ser	Gln	Ile	Lys	Tyr	Ala
		115					120					125			
Ala	Asn	Asn	Gly	Val	Gln	Met	Met	Thr	Phe	Asp	Ser	Glu	Val	Glu	Leu
	130					135					140				
Met	Lys	Val	Ala	Arg	Ala	His	Pro	Lys	Ala	Lys	Leu	Val	Leu	Arg	Ile
145					150					155				160	
Ala	Thr	Asp	Asp	Ser	Lys	Ala	Val	Cys	Arg	Leu	Ser	Val	Lys	Phe	Gly
				165					170					175	
Ala	Thr	Leu	Arg	Thr	Ser	Arg	Leu	Leu	Leu	Glu	Arg	Ala	Lys	Glu	Leu
		180					185						190		
Asn	Ile	Asp	Val	Val	Gly	Val	Ser	Phe	His	Val	Gly	Ser	Gly	Cys	Thr
	195						200					205			



## 4205

Asp Pro Glu Thr Phe Val Gln Ala Ile Ser Asp Ala Arg Cys Val Phe  
 210 215 220  
 Asp Met Gly Ala Glu Val Gly Phe Ser Met Tyr Leu Leu Asp Ile Gly  
 225 230 235 240  
 Gly Gly Phe Pro Gly Ser Glu Asp Val Lys Leu Lys Phe Glu Glu Ile  
 245 250 255  
 Thr Gly Val Ile Asn Pro Ala Leu Asp Lys Tyr Phe Pro Ser Asp Ser  
 260 265 270  
 Gly Val Arg Ile Ile Ala Glu Pro Gly Arg Tyr Tyr Val Ala Ser Ala  
 275 280 285  
 Phe Thr Leu Ala Val Asn Ile Ile Ala Lys Lys Ile Val Leu Lys Glu  
 290 295 300  
 Gln Thr Gly Ser Asp Asp Glu Asp Glu Ser Ser Glu Gln Thr Phe Met  
 305 310 315 320  
 Tyr Tyr Val Asn Asp Gly Val Tyr Gly Ser Phe Asn Cys Ile Leu Tyr  
 325 330 335  
 Asp His Ala His Val Lys Pro Leu Leu Gln Lys Arg Pro Lys Pro Asp  
 340 345 350  
 Glu Lys Tyr Tyr Ser Ser Ser Ile Trp Gly Pro Thr Cys Asp Gly Leu  
 355 360 365  
 Asp Arg Ile Val Glu Arg Cys Asp Leu Pro Glu Met His Val Gly Asp  
 370 375 380  
 Trp Met Leu Phe Glu Asn Met Gly Ala Tyr Thr Val Ala Ala Ala Ser  
 385 390 395 400  
 Thr Phe Asn Gly Phe Gln Arg Pro Thr Ile Tyr Tyr Val Met Ser Gly  
 405 410 415  
 Pro Ala Trp Gln Leu Met Gln Gln Phe Gln Asn Pro Asp Phe Pro Pro  
 420 425 430  
 Glu Val Glu Glu Gln Asp Ala Ser Thr Leu Pro Val Ser Cys Ala Trp  
 435 440 445  
 Glu Ser Gly Met Lys Arg His Arg Ala Ala Cys Ala Ser Ala Ser Ile  
 450 455 460  
 Asn Val  
 465

4206

&lt;210&gt; 4632

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4632

Asn Ser Ala Arg Gly His Cys Trp Leu Arg Leu Arg Ser Gly Pro Trp  
 1 5 10 15

Ile Ser Ser Lys Met Ala Ala Arg Ser Val Ser Gly Ile Thr Arg Arg  
 20 25 30

Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys Arg Glu Phe Trp Ser  
 35 40 45

Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val Glu Thr Val Glu Glu  
 50 55 60

Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu Arg Ser Arg Ala Tyr  
 65 70 75 80

Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu Ser Tyr Val Lys Glu  
 85 90 95

Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln Asp Ile Ser Leu Glu  
 100 105 110

Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His Leu Ala Asp Asp Leu  
 115 120 125

Gly His Val Val Pro Asn Ser Arg Leu His Gln Met Cys Arg Val Arg  
 130 135 140

Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln Asp Arg Ser Lys Phe  
 145 150 155 160

Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn Leu Lys Ile Thr Trp  
 165 170 175

Ser Tyr

&lt;210&gt; 4633

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4179

&lt;213&gt; Homo sapiens

&lt;400&gt; 4609

Glu Gly Pro Ala Glu Gly Asn Met Ala Ala Lys Val Phe Glu Ser Ile  
 1 5 10 15  
 Gly Lys Phe Gly Leu Ala Leu Ala Val Ala Gly Gly Val Val Asn Ser  
 20 25 30  
 Ala Leu Tyr Asn Val Asp Ala Gly His Arg Ala Val Ile Phe Asp Arg  
 35 40 45  
 Phe Arg Gly Val Gln Asp Ile Val Val Gly Glu Gly Thr His Phe Leu  
 50 55 60  
 Ile Pro Trp Val Gln Lys Pro Ile Ile Phe Asp Cys Arg Ser Arg Pro  
 65 70 75 80  
 Arg Asn Val Pro Val Ile Thr Gly Ser Lys Asp Leu Gln Asn Val Asn  
 85 90 95  
 Ile Thr Leu Arg Ile Leu Phe Arg Pro Val Ala Ser Gln Leu Pro Arg  
 100 105 110  
 Ile Phe Thr Ser Ile Gly Glu Asp Tyr Asp Glu Arg Val Leu Pro Ser  
 115 120 125  
 Ile Thr Thr Glu Ile Leu Lys Ser Val Val Ala Arg Phe Asp Ala Gly  
 130 135 140  
 Glu Leu Ile Thr Gln Arg Glu Leu Val Ser Arg Gln Val Ser Asp Asp  
 145 150 155 160  
 Leu Thr Glu Arg Ala Ala Thr Phe Gly Leu Ile Leu Asp Asp Val Ser  
 165 170 175  
 Leu Thr His Leu Thr Phe Gly Lys Glu Phe Thr Glu Ala Val Glu Ala  
 180 185 190  
 Lys Gln Val Ala Gln Gln Glu Ala Glu Arg Ala Arg Phe Val Val Glu  
 195 200 205  
 Lys Ala Glu Gln Gln Lys Lys Ala Ala Ile Ile Ser Ala Glu Gly Asp  
 210 215 220  
 Ser Lys Ala Ala Glu Leu Ile Ala Asn Ser Leu Ala Thr Ala Gly Asp  
 225 230 235 240  
 Gly Leu Ile Glu Leu Arg Lys Leu Glu Ala Ala Glu Asp Ile Ala Tyr  
 245 250 255

## 4180

Gln Leu Ser Arg Ser Arg Asn Ile Thr Tyr Leu Pro Ala Gly Gln Ser  
 260 265 270

Val Leu Leu Gln Leu Pro Gln  
 275

<210> 4610

<211> 406

<212> PRT

<213> Homo sapiens

<400> 4610

Val Thr Ala Cys Ala Ala Pro Ala Ala Trp Leu Pro Ile Leu Val Ala  
 1 5 10 15

Asp Ile Trp Ser Ser Tyr Asn Met Ala Asp Ile Asp Asn Lys Glu Gln  
 20 25 30

Ser Glu Leu Asp Gln Asp Leu Asp Asp Val Glu Glu Val Glu Glu Glu  
 35 40 45

Glu Thr Gly Glu Glu Thr Lys Leu Lys Ala Arg Gln Leu Thr Val Gln  
 50 55 60

Met Met Gln Asn Pro Gln Ile Leu Ala Ala Leu Gln Glu Arg Leu Asp  
 65 70 75 80

Gly Leu Val Glu Thr Pro Thr Gly Tyr Ile Glu Ser Leu Pro Arg Val  
 85 90 95

Val Lys Arg Arg Val Asn Ala Leu Lys Asn Leu Gln Val Lys Cys Ala  
 100 105 110

Gln Ile Glu Ala Lys Phe Tyr Glu Glu Val His Asp Leu Glu Arg Lys  
 115 120 125

Tyr Ala Val Leu Tyr Gln Pro Leu Phe Asp Lys Arg Phe Glu Ile Ile  
 130 135 140

Asn Ala Ile Tyr Glu Pro Thr Glu Glu Glu Cys Glu Trp Lys Pro Asp  
 145 150 155 160

Glu Glu Asp Glu Ile Ser Glu Glu Leu Lys Glu Lys Ala Lys Ile Glu  
 165 170 175

Asp Glu Lys Lys Asp Glu Glu Lys Glu Asp Pro Lys Gly Ile Pro Glu  
 180 185 190

Phe Trp Leu Thr Val Phe Lys Asn Val Asp Leu Leu Ser Asp Met Val

## 4181

195	200	205
Gln Glu His Asp Glu Pro Ile Leu Lys His Leu Lys Asp Ile Lys Val		
210	215	220
Lys Phe Ser Asp Ala Gly Gln Pro Met Ser Phe Val Leu Glu Phe His		
225	230	235 240
Phe Glu Pro Asn Glu Tyr Phe Thr Asn Glu Val Leu Thr Lys Thr Tyr		
	245	250 255
Arg Met Arg Ser Glu Pro Asp Asp Ser Asp Pro Phe Ser Phe Asp Gly		
	260	265 270
Pro Glu Ile Met Gly Cys Thr Gly Cys Gln Ile Asp Trp Lys Lys Gly		
	275	280 285
Lys Asn Val Thr Leu Lys Thr Ile Lys Lys Lys Gln Lys His Lys Gly		
	290	295 300
Arg Gly Thr Val Arg Thr Val Thr Lys Thr Val Ser Asn Asp Ser Phe		
305	310	315 320
Phe Asn Phe Phe Ala Pro Pro Glu Val Pro Glu Ser Gly Asp Leu Asp		
	325	330 335
Asp Asp Ala Glu Ala Ile Leu Ala Ala Asp Phe Glu Ile Gly His Phe		
	340	345 350
Leu Arg Glu Arg Ile Ile Pro Arg Ser Val Leu Tyr Phe Thr Gly Glu		
	355	360 365
Ala Ile Glu Asp Asp Asp Asp Asp Tyr Asp Glu Glu Gly Glu Glu Ala		
	370	375 380
Asp Glu Gly Tyr Gln Leu Phe Glu Glu Val Lys Ser Cys Ser Lys Leu		
385	390	395 400
Phe Gln Arg Trp Leu Gln		
	405	

&lt;210&gt; 4611

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4611

Gly Val Val Lys Ser Leu Leu Phe Thr Arg Cys Asn Val Leu Val Pro
1 5 10 15

4182

Tyr Lys Gln Gly Trp Gly Gly Glu Gly Arg Ala Lys Thr Asn Ile Glu  
                   20                                  25                                  30  
 Ile Leu Lys Gln Gln Gln Ser Glu Trp Ile Leu Phe Phe Val Ile Val  
                   35                                  40                                  45  
 Gly Gly Leu Lys Asn Ser Pro His Val Ile Ile Val Asn Thr Leu Leu  
                   50                                  55                                  60  
 Cys Gly His Cys Asn Ile Trp Gly Val Gly Gln Gly Gly Lys Val Thr  
                   65                                  70                                  75                                  80  
 Ile Val His Met Ser Leu Ala Ser Val Gln Ser Ser Val Gln Asn Val  
                                   85                                  90                                  95  
 Met Leu Phe Cys Lys Lys Arg Phe Met Ile Phe Lys Ile Asn Leu Val  
                   100                                  105                                  110  
 Asn Leu Phe Leu Val Val Ile Phe Phe Leu Arg Gln Ser Phe  
                   115                                  120                                  125

&lt;210&gt; 4612

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4612

Gln Glu Leu Arg Ser Pro Ser Arg Ser Pro Ser Pro Pro Pro Lys Ser  
           1                                  5                                  10                                  15  
 Pro Pro Trp Thr Thr Gly Gly Ser Leu Cys Glu Gln Leu Ala Phe Arg  
                   20                                  25                                  30  
 Lys Pro Leu Ser Val Phe Lys Gln Lys Val Glu Gly Ala Thr Lys Gln  
                   35                                  40                                  45  
 Ala Ala Val Arg Ala Ser Xaa Cys Arg Pro Leu Pro Cys Ser Ser Ser  
                   50                                  55                                  60  
 Ser Phe Ala Ser Ala Ser Ser Val Met Phe Cys Leu Glu Phe Tyr Leu  
                   65                                  70                                  75                                  80  
 Asp Phe Phe Ser Gly Tyr Phe Ser Val Phe Gln Pro Leu Leu

## 4183

85

90

&lt;210&gt; 4613

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4613

Lys	Lys	Ser	Leu	Arg	Cys	Glu	Tyr	Arg	Ile	Asp	Ile	Glu	Arg	Leu	Tyr
1				5					10					15	

Met	Ser	Lys	Thr	His	Leu	Ser	Ser	Ser	His	Arg	Pro	Leu	Gln	Ser	Gly
			20					25					30		

His	Val	Gly	Gln	Xaa	Gly	Thr	Gly	Ala	Gly	Asp	Ala	Pro	Pro	Gly	Gln
		35					40					45			

Asn	Ala	Pro	Phe	Val	Ala	Leu	Pro	Asp	Thr	Xaa	Tyr	Leu	Leu	Xaa	Lys
		50				55					60				

Arg	Glu	Thr	Gly	Ser
65				

&lt;210&gt; 4614

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4614

Asp	Pro	Arg	Thr	Met	Asn	Leu	Ala	Ile	Ser	Ile	Ala	Leu	Leu	Leu	Thr
1				5					10					15	

## 4184

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys  
                   20                                  25                                  30  
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser  
                   35                                  40                                  45  
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys  
                   50                                  55                                  60  
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser  
                   65                                  70                                  75                                  80  
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser  
                                   85                                  90                                  95  
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His  
                   100                                  105                                  110  
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg  
                   115                                  120                                  125  
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr  
                   130                                  135                                  140  
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr  
                   145                                  150                                  155                                  160  
 Asp Phe Met Ser Leu  
                                   165

&lt;210&gt; 4615

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4615

Ser Leu Cys Phe Ile Asp Gly Lys Tyr His Lys Gln Ile Lys Ile Glu  
           1                                  5                                  10                                  15  
 Glu Asn Ala Thr Gly Phe Ser Tyr Glu Ser Leu Phe Arg Glu Tyr Leu  
                   20                                  25                                  30  
 Asn Glu Thr Val Thr Glu Val Trp Ile Glu Asp Pro Tyr Ile Arg His  
                   35                                  40                                  45



## 4185

Thr His Gln Gly Ile Asp Gln Val Gln Gln Ser Arg Gly Leu Gln Glu  
 50 55 60

Ile Glu Glu Ser Leu Arg Ser His Gly Ser Ala Xaa Gly Arg Ser Ile  
 65 70 75 80

Leu Phe Phe Asn Thr  
 85

<210> 4616

<211> 366

<212> PRT

<213> Homo sapiens

<400> 4616

Pro Gly Ser Thr His Ala Ser Gly Lys Ile Gln Asn Lys Trp Leu Arg  
 1 5 10 15

Pro Ser Pro Arg Ser His Arg Thr Pro Glu Ser Gly Arg Val Leu Ser  
 20 25 30

Leu Phe Arg Leu Pro Pro Pro Gly Met Ala Leu Ser Gly Ser Thr Pro  
 35 40 45

Ala Pro Cys Trp Glu Glu Asp Glu Cys Leu Asp Tyr Tyr Gly Met Leu  
 50 55 60

Ser Leu His Arg Met Phe Glu Val Val Gly Gly Gln Leu Thr Glu Cys  
 65 70 75 80

Glu Leu Glu Leu Leu Ala Phe Leu Leu Asp Glu Ala Pro Gly Ala Ala  
 85 90 95

Gly Gly Leu Ala Arg Ala Arg Ser Gly Leu Glu Leu Leu Leu Glu Leu  
 100 105 110

Glu Arg Arg Gly Gln Cys Asp Glu Ser Asn Leu Arg Leu Leu Gly Gln  
 115 120 125

Leu Leu Arg Val Leu Ala Arg His Asp Leu Leu Pro His Leu Ala Arg  
 130 135 140

Lys Arg Arg Arg Pro Val Ser Pro Glu Arg Tyr Ser Tyr Gly Thr Ser  
 145 150 155 160

Ser Ser Ser Lys Arg Thr Glu Gly Ser Cys Arg Arg Arg Arg Gln Ser  
 165 170 175

## 4186

Ser Ser Ser Ala Asn Ser Gln Gln Gly Gln Trp Glu Thr Gly Ser Pro  
 180 185 190  
 Pro Thr Lys Arg Gln Arg Arg Ser Arg Gly Arg Pro Ser Gly Gly Ala  
 195 200 205  
 Arg Arg Arg Arg Arg Gly Ala Pro Ala Ala Pro Gln Gln Gln Ser Glu  
 210 215 220  
 Pro Ala Arg Pro Ser Ser Glu Gly Lys Val Thr Cys Asp Ile Arg Leu  
 225 230 235 240  
 Arg Val Arg Ala Glu Tyr Cys Glu His Gly Pro Ala Leu Glu Gln Gly  
 245 250 255  
 Val Ala Ser Arg Arg Pro Gln Ala Leu Ala Arg Gln Leu Asp Val Phe  
 260 265 270  
 Gly Gln Ala Thr Ala Val Leu Arg Ser Arg Asp Leu Gly Ser Val Val  
 275 280 285  
 Cys Asp Ile Lys Phe Ser Glu Leu Ser Tyr Leu Asp Ala Phe Trp Gly  
 290 295 300  
 Asp Tyr Leu Ser Gly Ala Leu Leu Gln Ala Leu Arg Gly Val Phe Leu  
 305 310 315 320  
 Thr Glu Ala Leu Arg Glu Ala Val Gly Arg Glu Ala Val Arg Leu Leu  
 325 330 335  
 Val Ser Val Asp Glu Ala Asp Tyr Glu Ala Gly Arg Arg Arg Leu Leu  
 340 345 350  
 Leu Met Glu Glu Glu Gly Gly Arg Arg Pro Thr Glu Ala Ser  
 355 360 365

&lt;210&gt; 4617

&lt;211&gt; 482

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4617

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr  
 1 5 10 15  
 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Met Val Leu Gln  
 20 25 30  
 Thr Thr Lys Gly Leu Arg Leu Leu Phe Asp Gly Asp Ala His Leu Leu

4187

35	40	45
Met Ser Ile Pro Ser Pro Phe Arg Gly Arg Leu Cys Gly Leu Cys Gly		
50	55	60
Asn Phe Asn Gly Asn Trp Ser Asp Asp Phe Val Leu Pro Asn Gly Ser		
65	70	75
Ala Ala Ser Ser Val Glu Thr Phe Gly Ala Ala Trp Arg Val Pro Gly		
	85	90
Ser Ser Lys Gly Cys Gly Glu Gly Cys Gly Pro Gln Gly Cys Pro Val		
	100	105
Cys Leu Ala Glu Glu Thr Ala Pro Tyr Glu Ser Asn Glu Ala Cys Gly		
	115	120
Gln Leu Arg Asn Pro Gln Gly Pro Phe Ala Thr Cys Gln Ala Val Leu		
	130	135
Ser Pro Ser Glu Tyr Phe Arg Gln Cys Val Tyr Asp Leu Cys Ala Gln		
	145	150
Lys Gly Asp Lys Ala Phe Leu Cys Arg Ser Leu Ala Ala Tyr Thr Ala		
	165	170
Ala Cys Gln Ala Ala Gly Val Ala Val Lys Pro Trp Arg Thr Asp Ser		
	180	185
Phe Cys Pro Leu His Cys Pro Ala His Ser His Tyr Ser Ile Cys Thr		
	195	200
Arg Thr Cys Gln Gly Ser Cys Ala Ala Leu Ser Gly Leu Thr Gly Cys		
	210	215
Thr Thr Arg Cys Phe Glu Gly Cys Glu Cys Asp Asp Arg Phe Leu Leu		
	225	230
Ser Gln Gly Val Cys Ile Pro Val Gln Asp Cys Gly Cys Thr His Asn		
	245	250
Gly Arg Tyr Leu Pro Val Asn Ser Ser Leu Leu Thr Ser Asp Cys Ser		
	260	265
Glu Arg Cys Ser Cys Ser Ser Ser Ser Gly Leu Thr Cys Gln Ala Ala		
	275	280
Gly Cys Pro Pro Gly Arg Val Cys Glu Val Lys Ala Glu Ala Arg Asn		
	290	300
Cys Trp Ala Thr Arg Gly Leu Cys Val Leu Ser Val Gly Ala Asn Leu		

## 4188

305                      310                      315                      320  
 Thr Thr Phe Asp Gly Ala Arg Gly Ala Thr Thr Ser Pro Gly Val Tyr  
                                  325                      330                      335  
 Glu Leu Ser Ser Arg Cys Pro Gly Leu Gln Asn Thr Ile Pro Trp Tyr  
                                  340                      345                      350  
 Arg Val Val Ala Glu Val Gln Ile Cys His Gly Lys Thr Glu Ala Val  
                                  355                      360                      365  
 Gly Gln Val His Ile Phe Phe Gln Asp Gly Met Val Thr Leu Thr Pro  
                                  370                      375                      380  
 Asn Lys Gly Val Trp Val Asn Gly Leu Arg Val Asp Leu Pro Ala Glu  
 385                                   390                      395                      400  
 Lys Leu Ala Ser Val Ser Val Ser Arg Thr Pro Asp Gly Ser Leu Leu  
                                  405                      410                      415  
 Val Arg Gln Lys Ala Gly Val Gln Val Trp Leu Gly Ala Asn Gly Lys  
                                  420                      425                      430  
 Val Ala Val Ile Val Ser Asn Asp His Ala Gly Lys Leu Cys Gly Ala  
                                  435                      440                      445  
 Cys Gly Asn Phe Asp Gly Asp Gln Thr Asn Asp Trp His Asp Ser Gln  
                                  450                      455                      460  
 Glu Lys Pro Ala Met Glu Lys Trp Arg Ala Gln Asp Phe Ser Pro Cys  
 465                                   470                      475                      480  
 Tyr Gly

&lt;210&gt; 4618

&lt;211&gt; 552

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4618

Thr Val Gly Ser Asp Arg Asp Thr Leu Ala Lys Arg Leu Pro Ala Ala  
   1                                  5                                  10                                  15  
 Ala Ser Gly Gly Thr Ser Ile Cys Ser Gly Leu Arg Ser Ala Phe Thr  
                                   20                                  25                                  30  
 Val Ile Arg Lys Lys Tyr Pro Thr Asp Gly Ser Glu Ile Val Leu Leu  
                                   35                                  40                                  45

## 4189

Thr	Asp	Gly	Glu	Asp	Asn	Thr	Ile	Ser	Gly	Cys	Phe	Asn	Glu	Val	Lys	50	55	60	
Gln	Ser	Gly	Ala	Ile	Ile	His	Thr	Val	Ala	Leu	Gly	Pro	Ser	Ala	Ala	65	70	75	80
Gln	Glu	Leu	Glu	Glu	Leu	Ser	Lys	Met	Thr	Gly	Gly	Leu	Gln	Thr	Tyr	85	90	95	
Ala	Ser	Asp	Gln	Val	Gln	Asn	Asn	Gly	Leu	Ile	Asp	Ala	Phe	Gly	Ala	100	105	110	
Leu	Ser	Ser	Gly	Asn	Gly	Ala	Val	Ser	Gln	Arg	Ser	Ile	Gln	Leu	Glu	115	120	125	
Ser	Lys	Gly	Leu	Thr	Leu	Gln	Asn	Ser	Gln	Trp	Met	Asn	Gly	Thr	Val	130	135	140	
Ile	Val	Asp	Ser	Thr	Val	Gly	Lys	Asp	Thr	Leu	Phe	Leu	Ile	Thr	Trp	145	150	155	160
Thr	Thr	Gln	Pro	Pro	Gln	Ile	Leu	Leu	Trp	Asp	Pro	Ser	Gly	Gln	Lys	165	170	175	
Gln	Gly	Gly	Phe	Val	Val	Asp	Lys	Asn	Thr	Lys	Met	Ala	Tyr	Leu	Gln	180	185	190	
Ile	Pro	Gly	Ile	Ala	Lys	Val	Gly	Thr	Trp	Lys	Tyr	Ser	Leu	Gln	Ala	195	200	205	
Ser	Ser	Gln	Thr	Leu	Thr	Leu	Thr	Val	Thr	Ser	Arg	Ala	Ser	Asn	Ala	210	215	220	
Thr	Leu	Pro	Pro	Ile	Thr	Val	Thr	Ser	Lys	Thr	Asn	Lys	Asp	Thr	Ser	225	230	235	240
Lys	Phe	Pro	Ser	Pro	Leu	Val	Val	Tyr	Ala	Asn	Ile	Arg	Gln	Gly	Ala	245	250	255	
Ser	Pro	Ile	Leu	Arg	Ala	Ser	Val	Thr	Ala	Leu	Ile	Glu	Ser	Val	Asn	260	265	270	
Gly	Lys	Thr	Val	Thr	Leu	Glu	Leu	Leu	Asp	Asn	Gly	Ala	Gly	Ala	Asp	275	280	285	
Ala	Thr	Lys	Asp	Asp	Gly	Val	Tyr	Ser	Arg	Tyr	Phe	Thr	Thr	Tyr	Asp	290	295	300	
Thr	Asn	Gly	Arg	Tyr	Ser	Val	Lys	Val	Arg	Ala	Leu	Gly	Gly	Val	Asn	305	310	315	320

Ala	Ala	Arg	Arg	Val	Ile	Pro	Gln	Gln	Ser	Gly	Ala	Leu	Tyr	Ile				
325				330								335						
Pro	Gly	Trp	Ile	Glu	Asn	Asp	Glu	Ile	Gln	Trp	Asn	Pro	Pro	Arg	Pro			
340				345								350						
Glu	Ile	Asn	Lys	Asp	Asp	Val	Gln	His	Lys	Gln	Val	Cys	Phe	Ser	Arg			
355				360								365						
Thr	Ser	Ser	Gly	Gly	Ser	Phe	Val	Ala	Ser	Asp	Val	Pro	Asn	Ala	Pro			
370				375								380						
Ile	Pro	Asp	Leu	Phe	Pro	Pro	Gly	Gln	Ile	Thr	Asp	Leu	Lys	Ala	Glu			
385				390								395			400			
Ile	His	Gly	Gly	Ser	Leu	Ile	Asn	Leu	Thr	Trp	Thr	Ala	Pro	Gly	Asp			
				405								410			415			
Asp	Tyr	Asp	His	Gly	Thr	Ala	His	Lys	Tyr	Ile	Ile	Arg	Ile	Ser	Thr			
				420								425			430			
Ser	Ile	Leu	Asp	Leu	Arg	Asp	Lys	Phe	Asn	Glu	Ser	Leu	Gln	Val	Asn			
				435								440			445			
Thr	Thr	Ala	Leu	Ile	Pro	Lys	Glu	Ala	Asn	Ser	Glu	Glu	Val	Phe	Leu			
				450								455			460			
Phe	Lys	Pro	Glu	Thr	Ile	Thr	Phe	Glu	Asn	Gly	Thr	Asp	Leu	Phe	Ile			
				465								470			475		480	
Ala	Ile	Gln	Ala	Val	Asp	Lys	Val	Asp	Leu	Lys	Ser	Glu	Ile	Ser	Asn			
				485								490			495			
Ile	Ala	Arg	Val	Ser	Leu	Phe	Ile	Pro	Pro	Gln	Thr	Pro	Pro	Glu	Thr			
				500								505			510			
Pro	Ser	Pro	Asp	Glu	Thr	Ser	Ala	Pro	Cys	Pro	Asn	Ile	His	Ile	Asn			
				515								520			525			
Ser	Thr	Ile	Pro	Gly	Ile	His	Ile	Leu	Lys	Ile	Met	Trp	Lys	Trp	Ile			
				530								535			540			
Gly	Glu	Leu	Gln	Leu	Ser	Ile	Ala											
				545								550						

BNSDOCID: <WO\_\_0122920A2\_I\_>

## 4191

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (179)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4619

Gly	Thr	Ser	Gly	Gly	Gly	Ala	Gly	Ala	Met	Ala	Val	Leu	Leu	Glu	Thr
1				5					10					15	

Thr	Leu	Gly	Asp	Val	Val	Ile	Asp	Leu	Tyr	Thr	Glu	Glu	Arg	Pro	Arg
			20					25					30		

Ala	Cys	Leu	Asn	Phe	Leu	Lys	Leu	Cys	Lys	Ile	Lys	Tyr	Tyr	Asn	Tyr
		35					40					45			

Cys	Leu	Ile	His	Asn	Val	Gln	Arg	Asp	Phe	Ile	Ile	Gln	Thr	Gly	Asp
	50					55					60				

Pro	Thr	Gly	Thr	Gly	Arg	Gly	Gly	Glu	Ser	Ile	Phe	Gly	Gln	Leu	Tyr
65					70					75					80

Gly	Asp	Gln	Ala	Ser	Phe	Phe	Glu	Ala	Glu	Lys	Val	Pro	Arg	Ile	Lys
				85					90					95	

His	Lys	Lys	Lys	Gly	Thr	Val	Ser	Met	Val	Asn	Asn	Gly	Ser	Asp	Gln
			100					105					110		

His	Gly	Ser	Gln	Phe	Leu	Ile	Thr	Thr	Gly	Glu	Asn	Leu	Asp	Tyr	Leu
	115						120					125			

Asp	Gly	Val	His	Thr	Val	Phe	Gly	Glu	Val	Thr	Glu	Gly	Met	Asp	Ile
	130					135					140				

Ile	Lys	Lys	Ile	Asn	Glu	Thr	Phe	Val	Asp	Lys	Asp	Phe	Val	Pro	Tyr
145				150						155					160

Gln	Asp	Ile	Arg	Ile	Asn	His	Thr	Val	Ile	Leu	Asp	Asp	Pro	Phe	Asp
			165						170					175	

Asp	Pro	Xaa	Asp	Leu	Leu	Ile	Pro	Asp	Arg	Ser	Pro	Glu	Pro	Thr	Arg
		180						185					190		

Glu	Gln	Leu	Asp	Ser	Gly	Arg	Ile	Gly	Ala	Asp	Glu	Glu	Ile	Asp	Asp
	195						200					205			

Phe	Lys	Gly	Arg	Ser	Ala	Glu	Glu	Val	Glu	Glu	Ile	Lys	Ala	Glu	Lys
	210					215					220				

Glu	Ala	Lys	Thr	Gln	Ala	Ile	Leu	Leu	Glu	Met	Val	Gly	Asp	Leu	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4192

225		230		235		240
Asp Ala Asp Ile Lys Pro Pro Glu Asn Val Leu Phe Val Cys Lys Leu	245		250		255	
Asn Pro Val Thr Thr Asp Glu Asp Leu Glu Ile Ile Phe Ser Arg Phe	260		265		270	
Gly Pro Ile Arg Ser Cys Glu Val Ile Arg Asp Trp Lys Thr Gly Glu	275		280		285	
Ser Leu Cys Tyr Ala Phe Ile Glu Phe Glu Lys Glu Glu Asp Cys Glu	290		295		300	
Lys Ala Phe Phe Lys Met Asp Asn Val Leu Ile Asp Asp Arg Arg Ile	305		310		315	320
His Val Asp Phe Ser Gln Ser Val Ala Lys Val Lys Trp Lys Gly Lys	325		330		335	
Gly Gly Lys Tyr Thr Lys Ser Asp Phe Lys Glu Tyr Glu Lys Glu Gln	340		345		350	
Asp Lys Pro Pro Asn Leu Val Leu Lys Asp Lys Val Lys Pro Lys Gln	355		360		365	
Asp Thr Lys Tyr Asp Leu Ile Leu Asp Glu Gln Ala Glu Asp Ser Lys	370		375		380	
Ser Ser His Ser His Thr Ser Lys Lys His Lys Lys Lys Thr His His	385		390		395	400
Cys Ser Glu Glu Lys Glu Asp Glu Asp Tyr Met Pro Ile Lys Asn Thr	405		410		415	
Asn Gln Asp Ile Tyr Arg Glu Met Gly Phe Gly His Tyr Glu Glu Glu	420		425		430	
Glu Ser Cys Trp Glu Lys Gln Lys Ser Glu Lys Arg Asp Arg Thr Gln	435		440		445	
Asn Arg Ser Arg Ser Arg Ser Arg Glu Arg Asp Gly His Tyr Ser Asn	450		455		460	
Ser His Lys Ser Lys Tyr Gln Thr Asp Leu Tyr Glu Arg Glu Arg Ser	465		470		475	480
Lys Lys Arg Asp Arg Ser Arg Ser Pro Lys Lys Ser Lys Asp Lys Glu	485		490		495	
Lys Ser Lys Tyr Arg						



4193

500

&lt;210&gt; 4620

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4620

Asn Phe Leu Leu Phe Thr Asn Ser Asp Glu Ile Gln Phe Phe Arg Arg  
 1 5 10 15

Leu Ser Phe Leu Glu Gln Ala Thr Ser Leu Pro Leu Glu Cys Pro Ile  
 20 25 30

Thr Tyr Ser Ser Thr Phe Ser Phe Cys Ser Arg Cys Leu Leu Lys Arg  
 35 40 45

Ser Gly Ala Val Gly Gly Tyr Ala His Leu Ser Ser Ser Val Gln  
 50 55 60

&lt;210&gt; 4621

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4621

Ser Gln His Phe Gly Arg Pro Arg Trp Thr Asp His Leu Arg Ser Gly  
 1 5 10 15

Val Arg Asp Gln Pro Gly Gln His Gly Gln Thr Trp Ser Leu Leu Lys  
 20 25 30

Ile Gln Lys Leu Ala Gly Val Ala Arg Cys Arg Ala Val Trp Gly Arg  
 35 40 45

His Gly  
 50

&lt;210&gt; 4622

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4622

Gly Thr Arg Trp Pro Cys Gly Lys His Lys Arg Val Leu Ile Phe Pro

[illegible]

<213> Homo sapiens

4195

&lt;210&gt; 4624

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4624

Gly Thr Arg Arg His Pro Ala Pro Ser Ala Gly Cys Ala Ser Gly Ala  
 1 5 10 15

Glu Val Arg Asp Lys Met Val Pro Pro Val Gln Val Ser Pro Leu Ile  
 20 25 30

Lys Leu Gly Arg Tyr Ser Ala Leu Phe Leu Gly Val Ala Tyr Gly Ala  
 35 40 45

Thr Arg Tyr Asn Tyr Leu Lys Pro Arg Ala Glu Glu Glu Arg Arg Ile  
 50 55 60

Ala Ala Glu Glu Lys Lys Lys Gln Asp Glu Leu Lys Arg Ile Ala Arg  
 65 70 75 80

Glu Leu Ala Glu Asp Asp Ser Ile Leu Lys  
 85 90

&lt;210&gt; 4625

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4625

Gln Ala Thr Gly Gly Pro Glu Leu Ala Ser Ser Val Leu Ser Pro Leu  
 1 5 10 15

Leu Asn Lys Asp Thr Ile Asp Phe Leu Asn Tyr Thr Val Asn Gly Asp  
 20 25 30

Glu Arg Gln Leu Trp Met Ser Leu Gly Gly Thr Trp Met Lys Ala Arg  
 35 40 45

Ala Glu Trp Pro Lys Glu Gln Phe Ile Pro Pro Tyr Val Pro Arg Phe  
 50 55 60

Arg Asn Gly Trp Glu Pro Pro Met Leu Asn Phe Met Gly Ala Thr Met  
 65 70 75 80

Glu Gln Asp Leu Tyr Gln Leu Ala Glu Ser Val Ala Asn Val Ala Glu

## 4196

85										90					95				
His	Gln	Arg	Lys	Gln	Glu	Ile	Lys	Arg	Leu	Ser	Thr	Glu	His	Ser	Ser				
			100						105					110					
Val	Ser	Glu	Tyr	His	Pro	Ala	Asp	Gly	Tyr	Ala	Phe	Ser	Ser	Asn	Ile				
		115						120					125						
Tyr	Thr	Arg	Gly	Ser	His	Leu	Asp	Gln	Gly	Glu	Ala	Ala	Val	Ala	Phe				
	130						135						140						
Lys	Pro	Thr	Ser	Asn	Arg	His	Ile	Asp	Arg	Asn	Tyr	Glu	Pro	Leu	Lys				
145					150					155					160				
Thr	Gln	Pro	Lys	Lys	Tyr	Ala	Lys	Ser	Lys	Tyr	Asp	Phe	Val	Ala	Arg				
			165						170					175					
Asn	Asn	Ser	Glu	Leu	Ser	Val	Leu	Lys	Asp	Asp	Ile	Leu	Glu	Ile	Leu				
			180					185					190						
Asp	Asp	Arg	Lys	Gln	Trp	Trp	Lys	Val	Arg	Asn	Ala	Ser	Gly	Asp	Ser				
		195					200					205							
Gly	Phe	Val	Pro	Asn	Asn	Ile	Leu	Asp	Ile	Val	Arg	Pro	Pro	Glu	Ser				
	210					215					220								
Gly	Leu	Gly	Arg	Ala	Asp	Pro	Pro	Tyr	Thr	His	Thr	Ile	Gln	Lys	Gln				
225					230					235					240				
Arg	Met	Glu	Tyr	Gly	Pro	Arg	Pro	Ala	Asp	Thr	Pro	Pro	Ala	Pro	Ser				
				245					250					255					
Pro	Pro	Pro	Thr	Pro	Ala	Pro	Val	Pro	Val	Pro	Leu	Pro	Pro	Ser	Thr				
			260					265					270						
Pro	Ala	Pro	Val	Pro	Val	Ser	Lys	Val	Pro	Ala	Asn	Ile	Thr	Arg	Gln				
	275						280					285							
Asn	Ser	Ser	Ser	Ser	Asp	Ser	Gly	Gly	Ser	Ile	Val	Arg	Asp	Ser	Gln				
	290					295					300								
Arg	His	Lys	Gln	Leu	Pro	Val	Asp	Arg	Arg	Asn	Leu	Arg	Trp	Arg	Lys				
305					310					315					320				
Cys	Lys	Met	Asn	Ser	Ser	Thr	Asp												
					325														

&lt;210&gt; 4626

&lt;211&gt; 578

## 4197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4626

Gly	Val	Gly	Asp	Gly	Gln	Ala	Pro	Met	Pro	Gly	Xaa	Thr	Glu	Glu	Pro
1				5					10					15	

Arg	Pro	Pro	Glu	Gln	Gln	Asp	Gln	Glu	Gly	Gly	Glu	Ala	Ala	Lys	Ala
			20					25					30		

Ala	Pro	Glu	Xaa	Pro	Gln	Gln	Arg	Pro	Pro	Glu	Ala	Val	Ala	Ala	Ala
		35					40					45			

Pro	Ala	Gly	Thr	Thr	Ser	Ser	Arg	Val	Leu	Arg	Gly	Gly	Arg	Asp	Arg
	50					55					60				

Gly	Arg	Ala	Ala	Ala	Ala	Arg	Arg	Arg	Xaa	Ser	Cys	Val	Pro	Pro	Glu
65					70					75					80

Xaa	Gly	Arg	Val	Ser	Pro	Pro	Ala	Xaa	Glu	Gln	Pro	Gln	Arg	Gln	Ala
				85					90					95	

Ser	Arg	Arg	Pro	Arg	Ala	Ala	Ala	Gln	Ala	Ala	Lys	Ser	Pro	Ser	Pro
			100					105					110		

Val	Gln	Gly	Lys	Lys	Ser	Pro	Arg	Leu	Leu	Cys	Ile	Glu	Lys	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4198

115		120		125
Thr Asp Lys Asp Pro Lys Glu Glu Lys Glu Glu Glu Asp Asp Ser Ala				
130		135		140
Leu Pro Gln Glu Val Ser Ile Ala Ala Ser Arg Pro Ser Arg Gly Trp				
145		150		155
				160
Arg Ser Ser Arg Thr Ser Val Ser Arg His Arg Asp Thr Glu Asn Thr				
		165		170
				175
Arg Ser Ser Arg Ser Lys Thr Gly Ser Leu Gln Leu Ile Cys Lys Ser				
		180		185
				190
Glu Pro Asn Thr Asp Gln Leu Asp Tyr Asp Val Gly Glu Glu His Gln				
		195		200
				205
Ser Pro Gly Gly Ile Ser Ser Glu Glu Glu Glu Glu Glu Glu Glu				
		210		215
				220
Met Leu Ile Ser Glu Glu Glu Ile Pro Phe Lys Asp Asp Pro Arg Asp				
		225		230
				235
				240
Glu Thr Tyr Lys Pro His Leu Glu Arg Glu Thr Pro Lys Pro Arg Arg				
		245		250
				255
Lys Ser Gly Lys Val Lys Glu Glu Lys Glu Lys Lys Glu Ile Lys Val				
		260		265
				270
Glu Val Glu Val Glu Val Lys Glu Glu Glu Asn Glu Ile Arg Glu Asp				
		275		280
				285
Glu Glu Pro Pro Arg Lys Arg Gly Arg Arg Arg Lys Asp Asp Lys Ser				
		290		295
				300
Pro Arg Leu Pro Lys Arg Arg Lys Lys Pro Pro Ile Gln Tyr Val Arg				
		305		310
				315
				320
Cys Glu Met Glu Gly Cys Gly Thr Val Leu Ala His Pro Arg Tyr Leu				
		325		330
				335
Gln His His Ile Lys Tyr Gln His Leu Leu Lys Lys Lys Tyr Val Cys				
		340		345
				350
Pro His Pro Ser Cys Gly Arg Leu Phe Arg Leu Gln Lys Gln Leu Leu				
		355		360
				365
Arg His Ala Lys His His Thr Asp Gln Arg Asp Tyr Ile Cys Glu Tyr				
		370		375
				380
Cys Ala Arg Ala Phe Lys Ser Ser His Asn Leu Ala Val His Arg Met				

## 4199

385                      390                      395                      400  
 Ile His Thr Gly Glu Lys Pro Leu Gln Cys Glu Ile Cys Gly Phe Thr  
                                  405                      410                      415  
 Cys Arg Gln Lys Ala Ser Leu Asn Trp His Met Lys Lys His Asp Ala  
                                  420                      425                      430  
 Asp Ser Phe Tyr Gln Phe Ser Cys Asn Ile Cys Gly Lys Lys Phe Glu  
                                  435                      440                      445  
 Lys Lys Asp Ser Val Val Ala His Lys Ala Lys Ser His Pro Glu Val  
                                  450                      455                      460  
 Leu Ile Ala Glu Ala Leu Ala Ala Asn Ala Gly Ala Leu Ile Thr Ser  
 465                                   470                      475                      480  
 Thr Asp Ile Leu Gly Thr Asn Pro Glu Ser Leu Thr Gln Pro Ser Asp  
                                  485                      490                      495  
 Gly Gln Gly Leu Pro Leu Leu Pro Glu Pro Leu Gly Asn Ser Thr Ser  
                                  500                      505                      510  
 Gly Glu Cys Leu Leu Leu Glu Ala Glu Gly Met Ser Lys Ser Tyr Cys  
                                  515                      520                      525  
 Ser Gly Thr Glu Arg Val Ser Leu Met Ala Asp Gly Lys Ile Phe Val  
                                  530                      535                      540  
 Gly Ser Gly Ser Ser Gly Gly Thr Glu Gly Leu Val Met Asn Ser Asp  
 545                                   550                      555                      560  
 Ile Leu Gly Ala Thr Thr Glu Val Leu Ile Glu Asp Ser Asp Ser Ala  
                                  565                      570                      575  
 Gly Pro

&lt;210&gt; 4627

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4627

Lys Ile Met Ala Ser Pro Asp Trp Gly Tyr Asp Asp Lys Asn Gly Pro  
 1                      5                      10                      15

Glu Gln Trp Ser Lys Leu Tyr Pro Ile Ala Asn Gly Asn Asn Gln Ser  
 20                      25                      30

## 4200

Pro Val Asp Ile Lys Thr Ser Glu Thr Lys His Asp Thr Ser Leu Lys  
 35 40 45  
 Pro Ile Ser Val Ser Tyr Asn Pro Ala Thr Ala Lys Glu Ile Ile Asn  
 50 55 60  
 Val Gly His Ser Phe His Val Asn Phe Glu Asp Asn Asp Asn Arg Ser  
 65 70 75 80  
 Val Leu Lys Gly Gly Pro Phe Ser Asp Ser Tyr Arg Leu Phe Gln Phe  
 85 90 95  
 His Phe His Trp Gly Ser Thr Asn Glu His Gly Ser Glu His Thr Val  
 100 105 110  
 Asp Gly Val Lys Tyr Ser Ala Glu Leu His Val Ala His Trp Asn Ser  
 115 120 125  
 Ala Lys Tyr Ser Ser Leu Ala Glu Ala Ala Ser Lys Ala Asp Gly Leu  
 130 135 140  
 Ala Val Ile Gly Val Leu Met Lys Val Gly Glu Ala Asn Pro Lys Leu  
 145 150 155 160  
 Gln Lys Val Leu Asp Ala Leu Gln Ala Ile Lys Thr Lys Gly Lys Arg  
 165 170 175  
 Ala Pro Phe Thr Asn Phe Asp Pro Ser Thr Leu Leu Pro Ser Ser Leu  
 180 185 190  
 Asp Phe Trp Thr Tyr Pro Gly Ser Leu Thr His Pro Pro Leu Tyr Glu  
 195 200 205  
 Ser Val Thr Trp Ile Ile Cys Lys Glu Ser Ile Ser Val Ser Ser Glu  
 210 215 220  
 Gln Leu Ala Gln Phe Arg Ser Leu Leu Ser Asn Val Glu Gly Asp Asn  
 225 230 235 240  
 Ala Val Pro Met Gln His Asn Asn Arg Pro Thr Gln Pro Leu Lys Gly  
 245 250 255  
 Arg Thr Val Arg Ala Ser Phe  
 260

&lt;210&gt; 4628

&lt;211&gt; 301

&lt;212&gt; PRT



## 4201

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (156)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (185)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4628

Ala	Asp	Ala	Trp	Gly	Arg	Thr	Ala	Glu	Leu	Thr	Val	Thr	Ala	Ala	Leu
1				5					10					15	

Thr	Arg	Glu	Phe	Leu	Glu	Pro	Lys	Leu	Phe	Ser	Thr	Glu	Asp	Lys	Gln
		20						25					30		

Ala	Ala	Glu	Thr	Met	Gly	Ser	Pro	Ser	Ala	Cys	Pro	Tyr	Arg	Val	Cys
		35					40					45			

Ile	Pro	Trp	Gln	Gly	Leu	Leu	Leu	Thr	Ala	Ser	Leu	Leu	Thr	Phe	Trp
	50					55					60				

Asn	Leu	Pro	Asn	Ser	Ala	Gln	Thr	Asn	Ile	Asp	Val	Val	Pro	Phe	Asn
65					70					75					80

Val	Ala	Glu	Gly	Lys	Glu	Val	Leu	Leu	Val	Val	His	Asn	Glu	Ser	Gln
				85					90					95	

Asn	Leu	Tyr	Gly	Tyr	Asn	Trp	Tyr	Lys	Gly	Glu	Arg	Val	His	Ala	Asn
		100						105					110		

Tyr	Arg	Ile	Ile	Gly	Tyr	Val	Lys	Asn	Ile	Ser	Gln	Glu	Asn	Ala	Pro
	115						120					125			

Gly	Pro	Ala	His	Asn	Gly	Arg	Glu	Thr	Ile	Tyr	Pro	Asn	Gly	Thr	Leu
	130					135					140				

Leu	Ile	Gln	Asn	Val	Thr	His	Asn	Asp	Ala	Gly	Xaa	Tyr	Thr	Leu	His
145					150					155					160

Val	Ile	Lys	Glu	Asn	Leu	Val	Asn	Glu	Glu	Val	Thr	Arg	Gln	Phe	Tyr
			165					170						175	

Val	Phe	Ser	Glu	Pro	Pro	Lys	Pro	Xaa	Ile	Thr	Ser	Asn	Asn	Phe	Asn
		180						185					190		

Pro	Val	Glu	Asn	Lys	Asp	Ile	Val	Val	Leu	Thr	Cys	Gln	Pro	Glu	Thr
	195						200					205			

## 4202

Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Leu Val  
 210 215 220

Ser Pro Arg Leu Leu Leu Ser Thr Asp Asn Arg Thr Leu Val Leu Leu  
 225 230 235 240

Ser Ala Thr Lys Asn Asp Ile Gly Pro Tyr Glu Cys Glu Ile Gln Asn  
 245 250 255

Pro Val Gly Ala Ser Arg Ser Asp Pro Val Thr Leu Asn Val Arg Tyr  
 260 265 270

Glu Ser Val Gln Ala Ser Ser Pro Asp Leu Ser Ala Gly Thr Ala Val  
 275 280 285

Ser Ile Met Ile Gly Val Leu Ala Gly Met Ala Leu Ile  
 290 295 300

&lt;210&gt; 4629

&lt;211&gt; 256

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4629

Pro Ala Gly Ala Gly Cys Arg Ala Gly Glu Arg Ala Gly Gln Ala Lys  
 1 5 10 15

Ala Leu Val Pro Ala Arg Cys Gly Pro Gln Ser Ala Ala Met Gly Ala  
 20 25 30

Ser Ala Arg Leu Leu Arg Ala Val Ile Met Gly Ala Pro Gly Ser Gly  
 35 40 45

Lys Gly Thr Val Ser Ser Arg Ile Thr Thr His Phe Glu Leu Lys His  
 50 55 60

Leu Ser Ser Gly Asp Leu Leu Arg Asp Asn Met Leu Arg Gly Thr Glu  
 65 70 75 80

Ile Gly Val Leu Ala Lys Ala Phe Ile Asp Gln Gly Lys Leu Ile Pro  
 85 90 95

Asp Asp Val Met Thr Arg Leu Ala Leu His Glu Leu Lys Asn Leu Thr  
 100 105 110

Gln Tyr Ser Trp Leu Leu Asp Gly Phe Pro Arg Thr Leu Pro Gln Ala  
 115 120 125

## 4203

Glu Ala Leu Asp Arg Ala Tyr Gln Ile Asp Thr Val Ile Asn Leu Asn  
 130 135 140  
 Val Pro Phe Glu Val Ile Lys Gln Arg Leu Thr Ala Arg Trp Ile His  
 145 150 155 160  
 Pro Ala Ser Gly Arg Val Tyr Asn Ile Glu Phe Asn Pro Pro Lys Thr  
 165 170 175  
 Val Gly Ile Asp Asp Leu Thr Gly Glu Pro Leu Ile Gln Arg Glu Asp  
 180 185 190  
 Asp Lys Pro Glu Thr Val Ile Lys Arg Leu Lys Ala Tyr Glu Asp Gln  
 195 200 205  
 Thr Lys Pro Val Leu Glu Tyr Tyr Gln Lys Lys Gly Val Leu Glu Thr  
 210 215 220  
 Phe Ser Gly Thr Glu Thr Asn Lys Ile Trp Pro Tyr Val Tyr Ala Phe  
 225 230 235 240  
 Leu Gln Thr Lys Val Pro Gln Arg Ser Gln Lys Ala Ser Val Thr Pro  
 245 250 255

<210> 4630  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 4630  
 Asp Trp Gly Leu Ala Arg Ser Arg Pro Gly Cys Lys Cys Cys Gly Gly  
 1 5 10 15  
 Arg Lys Ser Arg Pro His Arg Arg Gly Ser Ala Val Met Pro Lys Tyr  
 20 25 30  
 Tyr Glu Asp Lys Pro Gln Ala Ala Arg Cys Ala Gly Leu Lys Glu Asp  
 35 40 45  
 Leu Gly Ala Cys Leu Leu Gln Ser Asp Cys Val Val Gln Glu Gly Lys  
 50 55 60  
 Ser Pro Arg Gln Cys Leu Lys Glu Gly Tyr Cys Asn Ser Leu Lys Tyr  
 65 70 75 80  
 Ala Phe Phe Glu Cys Lys Arg Ser Val Leu Asp Asn Arg Ala Arg Phe

## 4204

85

90

95

Arg Gly Arg Lys Gly Tyr  
100

&lt;210&gt; 4631

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4631

Glu His Gln Glu Ile Met Asn Asn Phe Gly Asn Glu Glu Phe Asp Cys  
1 5 10 15

His Phe Leu Asp Glu Gly Phe Thr Ala Lys Asp Ile Leu Asp Gln Lys  
20 25 30

Ile Asn Glu Val Ser Ser Ser Asp Asp Lys Asp Ala Phe Tyr Val Ala  
35 40 45

Asp Leu Gly Asp Ile Leu Lys Lys His Leu Arg Trp Leu Lys Ala Leu  
50 55 60

Pro Arg Val Thr Pro Phe Tyr Ala Val Lys Cys Asn Asp Ser Lys Ala  
65 70 75 80

Ile Val Lys Thr Leu Ala Ala Thr Gly Thr Gly Phe Asp Cys Ala Ser  
85 90 95

Lys Thr Glu Ile Gln Leu Val Gln Ser Leu Gly Val Pro Pro Glu Arg  
100 105 110

Ile Ile Tyr Ala Asn Pro Cys Lys Gln Val Ser Gln Ile Lys Tyr Ala  
115 120 125

Ala Asn Asn Gly Val Gln Met Met Thr Phe Asp Ser Glu Val Glu Leu  
130 135 140

Met Lys Val Ala Arg Ala His Pro Lys Ala Lys Leu Val Leu Arg Ile  
145 150 155 160

Ala Thr Asp Asp Ser Lys Ala Val Cys Arg Leu Ser Val Lys Phe Gly  
165 170 175

Ala Thr Leu Arg Thr Ser Arg Leu Leu Leu Glu Arg Ala Lys Glu Leu  
180 185 190

Asn Ile Asp Val Val Gly Val Ser Phe His Val Gly Ser Gly Cys Thr  
195 200 205

## 4205

Asp Pro Glu Thr Phe Val Gln Ala Ile Ser Asp Ala Arg Cys Val Phe  
 210 215 220  
 Asp Met Gly Ala Glu Val Gly Phe Ser Met Tyr Leu Leu Asp Ile Gly  
 225 230 235 240  
 Gly Gly Phe Pro Gly Ser Glu Asp Val Lys Leu Lys Phe Glu Glu Ile  
 245 250 255  
 Thr Gly Val Ile Asn Pro Ala Leu Asp Lys Tyr Phe Pro Ser Asp Ser  
 260 265 270  
 Gly Val Arg Ile Ile Ala Glu Pro Gly Arg Tyr Tyr Val Ala Ser Ala  
 275 280 285  
 Phe Thr Leu Ala Val Asn Ile Ile Ala Lys Lys Ile Val Leu Lys Glu  
 290 295 300  
 Gln Thr Gly Ser Asp Asp Glu Asp Glu Ser Ser Glu Gln Thr Phe Met  
 305 310 315 320  
 Tyr Tyr Val Asn Asp Gly Val Tyr Gly Ser Phe Asn Cys Ile Leu Tyr  
 325 330 335  
 Asp His Ala His Val Lys Pro Leu Leu Gln Lys Arg Pro Lys Pro Asp  
 340 345 350  
 Glu Lys Tyr Tyr Ser Ser Ser Ile Trp Gly Pro Thr Cys Asp Gly Leu  
 355 360 365  
 Asp Arg Ile Val Glu Arg Cys Asp Leu Pro Glu Met His Val Gly Asp  
 370 375 380  
 Trp Met Leu Phe Glu Asn Met Gly Ala Tyr Thr Val Ala Ala Ala Ser  
 385 390 395 400  
 Thr Phe Asn Gly Phe Gln Arg Pro Thr Ile Tyr Tyr Val Met Ser Gly  
 405 410 415  
 Pro Ala Trp Gln Leu Met Gln Gln Phe Gln Asn Pro Asp Phe Pro Pro  
 420 425 430  
 Glu Val Glu Glu Gln Asp Ala Ser Thr Leu Pro Val Ser Cys Ala Trp  
 435 440 445  
 Glu Ser Gly Met Lys Arg His Arg Ala Ala Cys Ala Ser Ala Ser Ile  
 450 455 460  
 Asn Val  
 465

4206

&lt;210&gt; 4632

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4632

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Asn Ser Ala Arg Gly His Cys Trp Leu Arg Leu Arg Ser Gly Pro Trp
 1           5           10           15

Ile Ser Ser Lys Met Ala Ala Arg Ser Val Ser Gly Ile Thr Arg Arg
      20           25           30

Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys Arg Glu Phe Trp Ser
      35           40           45

Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val Glu Thr Val Glu Glu
      50           55           60

Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu Arg Ser Arg Ala Tyr
      65           70           75           80

Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu Ser Tyr Val Lys Glu
      85           90           95

Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln Asp Ile Ser Leu Glu
      100          105          110

Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His Leu Ala Asp Asp Leu
      115          120          125

Gly His Val Val Pro Asn Ser Arg Leu His Gln Met Cys Arg Val Arg
      130          135          140

Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln Asp Arg Ser Lys Phe
      145          150          155          160

Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn Leu Lys Ile Thr Trp
      165          170          175

Ser Tyr

```

&lt;210&gt; 4633

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4207

&lt;400&gt; 4633

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Arg Pro Ala Pro Ala Gly Ala Arg Pro Pro Leu Ile Pro Asp Pro Ala
 1             5             10             15

Val Gly Ala Met Ala Glu Ala Val Leu Arg Val Ala Arg Arg Gln Leu
          20             25             30

Ser Gln Arg Gly Gly Ser Gly Ala Pro Ile Leu Leu Arg Gln Met Phe
          35             40             45

Glu Pro Val Ser Cys Thr Phe Thr Tyr Leu Leu Gly Asp Arg Glu Ser
          50             55             60

Arg Glu Ala Val Leu Ile Asp Pro Val Leu Glu Thr Ala Pro Arg Asp
          65             70             75             80

Ala Gln Leu Ile Lys Glu Leu Gly Leu Arg Leu Leu Tyr Ala Val Asn
          85             90             95

Thr His Cys His Ala Asp His Ile Thr Gly Ser Gly Leu Leu Arg Ser
          100             105             110

Leu Leu Pro Gly Cys Gln Ser Val Ile Ser Arg Leu Ser Gly Ala Gln
          115             120             125

Ala Asp Leu His Ile Glu Asp Gly Asp Ser Ile Arg Phe Gly Arg Phe
          130             135             140

Ala Leu Glu Thr Arg Ala Ser Pro Gly His Thr Pro Gly Cys Val Thr
          145             150             155             160

Phe Val Leu Asn Asp His Ser Met Ala Phe Thr Gly Asp Ala Leu Leu
          165             170             175

Ile Arg Gly Cys Gly Arg Thr Asp Phe Gln Gln Gly Cys Ala Lys Thr
          180             185             190

Leu Tyr His Ser Val His Glu Lys Ile Phe Thr Leu Pro Gly Asp Cys
          195             200             205

Leu Ile Tyr Pro Ala His Asp Tyr His Gly Phe Thr Val Ser Thr Val
          210             215             220

Glu Glu Glu Arg Thr Leu Asn Pro Arg Leu Thr Leu Ser Cys Glu Glu
          225             230             235             240

Phe Val Lys Ile Met Gly Asn Leu Asn Leu Pro Lys Pro Gln Gln Ile
          245             250             255

Asp Phe Ala Val Pro Ala Asn Met Arg Cys Gly Val Gln Thr Pro Thr

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## 4208

260

265

270

Ala

&lt;210&gt; 4634

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4634

Val	Thr	Ser	Glu	Gly	Val	Arg	Val	Arg	Ser	Ser	Arg	Gly	Arg	Ala	Xaa
1				5					10					15	

Gly	Val	Trp	Arg	Phe	Glu	Arg	Asp	Glu	Asp	Gly	Thr	Gly	Ala	Gly	Cys
			20					25					30		

Gly	Gln	Trp	Thr	Arg	Phe	Cys	Arg	Glu	Pro	Lys	Met	Ala	Val	Asn	Val
		35					40					45			

Tyr	Ser	Thr	Ser	Val	Thr	Ser	Asp	Asn	Leu	Ser	Arg	His	Asp	Met	Leu
	50					55					60				

Ala	Trp	Ile	Asn	Glu	Ser	Leu	Gln	Leu	Asn	Leu	Thr	Lys	Ile	Glu	Gln
65					70					75					80

Leu	Cys	Ser	Gly	Ala	Ala	Tyr	Cys	Gln	Phe	Met	Asp	Met	Leu	Phe	Pro
				85					90					95	

Gly	Ser	Ile	Ala	Leu	Lys	Lys	Val	Lys	Phe	Gln	Ala	Lys	Leu	Glu	His
			100					105					110		

Glu	Tyr	Ile	Gln	Asn	Phe	Lys	Ile	Leu	Gln	Ala	Gly	Phe	Lys	Arg	Met
		115					120					125			

Gly	Val	Asp	Lys	Ile	Ile	Pro	Val	Asp	Lys	Leu	Val	Lys	Gly	Lys	Phe
	130					135					140				

Gln	Asp	Asn	Phe	Glu	Phe	Val	Gln	Trp	Phe	Lys	Lys	Phe	Phe	Asp	Ala
145					150					155					160

Asn	Tyr	Asp	Gly	Lys	Asp	Tyr	Asp	Pro	Val	Ala	Ala	Arg	Gln	Gly	Gln
				165						170				175	



## 4209

Glu Thr Ala Val Ala Pro Ser Leu Val Ala Pro Ala Leu Asn Lys Pro  
                   180                  185                  190  
 Lys Lys Pro Leu Thr Ser Ser Ser Ala Ala Pro Gln Arg Pro Ile Ser  
                   195                  200                  205  
 Thr Gln Arg Thr Ala Ala Ala Pro Lys Ala Gly Pro Gly Val Val Arg  
                   210                  215                  220  
 Lys Asn Pro Gly Val Gly Asn Gly Asp Asp Glu Ala Ala Glu Leu Met  
                   225                  230                  235                  240  
 Gln Gln Val Asn Val Leu Lys Leu Thr Val Glu Asp Leu Glu Lys Glu  
                   245                  250                  255  
 Arg Asp Phe Tyr Phe Gly Lys Leu Arg Asn Ile Glu Leu Ile Cys Gln  
                   260                  265                  270  
 Glu Asn Glu Gly Glu Asn Asp Pro Val Leu Gln Arg Ile Val Asp Ile  
                   275                  280                  285  
 Leu Tyr Ala Thr Asp Glu Gly Phe Val Ile Pro Asp Glu Gly Gly Pro  
                   290                  295                  300  
 Gln Glu Glu Gln Glu Glu Tyr  
                   305                  310

&lt;210&gt; 4635

&lt;211&gt; 367

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4635

Asn Ala Met Arg Xaa Ser Gly Asp Ala Phe Asp Ile Gln Arg Cys Tyr  
           1                  5                  10                  15  
 Cys Asn Tyr Thr Thr Asp Val Val Ala Ser Val Ala Phe Gly Thr Pro  
                   20                  25                  30  
 Val Asp Ser Trp Gln Ala Pro Glu Asp Pro Phe Val Lys His Cys Lys  
                   35                  40                  45  
 Arg Phe Phe Glu Phe Cys Ile Pro Arg Pro Ile Leu Val Leu Leu Leu  
           50                  55                  60

## 4210

Ser Phe Pro Ser Ile Met Val Pro Leu Ala Arg Ile Leu Pro Asn Lys  
 65 70 75 80  
 Asn Arg Asp Glu Leu Asn Gly Phe Phe Asn Lys Leu Ile Arg Asn Val  
 85 90 95  
 Ile Ala Leu Arg Asp Gln Gln Ala Ala Glu Glu Arg Arg Arg Asp Phe  
 100 105 110  
 Leu Gln Met Val Leu Asp Ala Arg His Ser Ala Ser Pro Met Gly Val  
 115 120 125  
 Gln Asp Phe Asp Ile Val Arg Asp Val Phe Ser Ser Thr Gly Cys Lys  
 130 135 140  
 Pro Asn Pro Ser Arg Gln His Gln Pro Ser Pro Met Ala Arg Pro Leu  
 145 150 155 160  
 Thr Val Asp Glu Ile Val Gly Gln Ala Phe Ile Phe Leu Ile Ala Gly  
 165 170 175  
 Tyr Glu Ile Ile Thr Asn Thr Leu Ser Phe Ala Thr Tyr Leu Leu Ala  
 180 185 190  
 Thr Asn Pro Asp Cys Gln Glu Lys Leu Leu Arg Glu Val Asp Val Phe  
 195 200 205  
 Lys Glu Lys His Met Ala Pro Glu Phe Cys Ser Leu Glu Glu Gly Leu  
 210 215 220  
 Pro Tyr Leu Asp Met Val Ile Ala Glu Thr Leu Arg Met Tyr Pro Pro  
 225 230 235 240  
 Ala Phe Arg Phe Thr Arg Glu Ala Ala Gln Asp Cys Glu Val Leu Gly  
 245 250 255  
 Gln Arg Ile Pro Ala Gly Ala Val Leu Glu Met Ala Val Gly Ala Leu  
 260 265 270  
 His His Asp Pro Glu His Trp Pro Ser Pro Glu Thr Phe Asn Pro Glu  
 275 280 285  
 Arg Phe Thr Ala Glu Ala Arg Gln Gln His Arg Pro Phe Thr Tyr Leu  
 290 295 300  
 Pro Phe Gly Ala Gly Pro Arg Ser Cys Leu Gly Val Arg Leu Gly Leu  
 305 310 315 320  
 Leu Glu Val Lys Leu Thr Leu Leu His Val Leu His Lys Phe Arg Phe  
 325 330 335

## 4211

Gln Ala Cys Pro Glu Thr Gln Val Pro Leu Gln Leu Glu Ser Lys Ser  
                   340                  345                  350

Ala Leu Gly Pro Lys Asn Gly Val Tyr Ile Lys Ile Val Ser Arg  
                   355                  360                  365

<210> 4636

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4636

Val Val Cys Gln Ser Arg Arg Arg Arg Arg Arg Xaa Arg Arg Arg Arg  
       1                  5                  10                  15

Ser Thr Val Ile Arg Pro Pro Arg Arg Gly Val Gly Gly Leu Arg Gly  
                   20                  25                  30

Thr Phe Phe Phe Phe Arg Leu Thr Ala Gly Gln Leu Arg Ser Met Ser  
                   35                  40                  45

Thr Pro Ala Arg Arg Arg Leu Met Arg Asp Phe Lys Arg Leu Gln Glu  
       50                  55                  60

Asp Pro Pro Val Gly Val Ser Gly Ala Pro Ser Glu Asn Asn Ile Met  
       65                  70                  75                  80

Gln Trp Asn Ala Val Ile Phe Gly Pro Glu Gly Thr Pro Phe Glu Asp  
                   85                  90                  95

Gly Thr Phe Lys Leu Val Ile Glu Phe Ser Glu Glu Tyr Pro Asn Lys  
                   100                  105                  110

Pro Pro Thr Val Arg Phe Leu Ser Lys Met Phe His Pro Asn Val Tyr  
                   115                  120                  125

Ala Asp Gly Ser Ile Cys Leu Asp Ile Leu Gln Asn Arg Trp Ser Pro  
       130                  135                  140

Thr Tyr Asp Val Ser Ser Ile Leu Thr Ser Ile Gln Ser Leu Leu Asp  
       145                  150                  155                  160

Glu Pro Asn Pro Asn Ser Pro Ala Asn Ser Gln Ala Ala Gln Leu Tyr

## 4212

165                      170                      175  
 Gln Glu Asn Lys Arg Glu Tyr Glu Lys Arg Val Ser Ala Ile Val Glu  
                     180                      185                      190  
 Gln Ser Trp Asn Asp Ser  
                     195

&lt;210&gt; 4637

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4637

Leu Phe Phe Met Val Ser Asn Met Tyr Asp Gln Cys Ser His Cys Phe  
   1                    5                    10                    15

Lys Met Tyr Arg Val Asn Ile Asn Thr Ser Tyr Ala Xaa Lys Lys Lys  
                     20                    25                    30

Lys Lys Gly Gly Arg Ser Xaa Gly Ser Lys Leu Thr Tyr Ala Cys Met  
                     35                    40                    45

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
                     50                    55                    60

Val Val Leu Gln Arg  
   65

&lt;210&gt; 4638

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4638

Leu Tyr Cys Phe Ser Ser Val Leu Glu Lys Lys Ile Asn Pro Ala Ile  
   1                    5                    10                    15

## 4213

Thr Phe Trp Asn Cys Leu Asp Phe Ser Ala Val Gln Ala Ile Ser Asn  
                   20                  25                  30

Ile Val Leu Cys Arg Glu Cys His Cys Ser Phe Glu Cys Ile His Val  
                   35                  40                  45

Trp Val Leu Ile Ile Val Tyr Phe Leu Trp Gly Trp Lys Arg Lys Thr  
                   50                  55                  60

Ile Gln Ala Glu Lys Ser Ile Leu Lys Asp Ala Phe Leu  
                   65                  70                  75

&lt;210&gt; 4639

&lt;211&gt; 617

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4639

Gly Thr Arg Glu Cys Pro Leu Cys Leu Val Arg Leu Pro Pro Glu Arg  
   1                  5                  10                  15

Ala Pro Arg Leu Leu Ser Cys Pro His Arg Ser Cys Arg Asp Cys Leu  
                   20                  25                  30

Arg His Tyr Leu Arg Leu Glu Ile Ser Glu Ser Arg Val Pro Ile Ser  
                   35                  40                  45

Cys Pro Glu Cys Ser Glu Arg Leu Asn Pro His Asp Ile Arg Leu Leu  
                   50                  55                  60

Leu Ala Asp Pro Pro Leu Met His Lys Tyr Glu Glu Phe Met Leu Arg  
   65                  70                  75                  80

Arg Tyr Leu Ala Ser Asp Pro Asp Cys Arg Trp Cys Pro Ala Pro Asp  
                   85                  90                  95

Cys Gly Tyr Ala Val Ile Ala Tyr Gly Cys Ala Ser Cys Pro Lys Leu  
                   100                  105                  110

Thr Cys Glu Arg Glu Gly Cys Gln Thr Glu Phe Cys Tyr His Cys Lys  
                   115                  120                  125

Gln Ile Trp His Pro Asn Gln Thr Cys Asp Met Ala Arg Gln Gln Arg  
                   130                  135                  140

Ala Gln Thr Leu Arg Val Arg Thr Lys His Thr Ser Gly Leu Ser Tyr  
   145                  150                  155                  160

## 4214

Gly Gln Glu Ser Gly Pro Asp Asp Ile Lys Pro Cys Pro Arg Cys Ser  
 165 170 175  
 Ala Tyr Ile Ile Lys Met Asn Asp Gly Ser Cys Asn His Met Thr Cys  
 180 185 190  
 Ala Val Cys Gly Cys Glu Phe Cys Trp Leu Cys Met Lys Glu Ile Ser  
 195 200 205  
 Asp Leu His Tyr Leu Ser Pro Ser Gly Cys Thr Phe Trp Gly Lys Lys  
 210 215 220  
 Pro Trp Ser Arg Lys Lys Lys Ile Leu Trp Gln Leu Gly Thr Leu Ile  
 225 230 235 240  
 Gly Ala Pro Val Gly Ile Ser Leu Ile Ala Gly Ile Ala Ile Pro Ala  
 245 250 255  
 Met Val Ile Gly Ile Pro Val Tyr Val Gly Arg Lys Ile His Ser Arg  
 260 265 270  
 Tyr Glu Gly Arg Lys Thr Ser Lys His Lys Arg Asn Leu Ala Ile Thr  
 275 280 285  
 Gly Gly Val Thr Leu Ser Val Ile Ala Ser Pro Val Ile Ala Ala Val  
 290 295 300  
 Ser Val Gly Ile Gly Val Pro Ile Met Leu Ala Tyr Val Tyr Gly Val  
 305 310 315 320  
 Val Pro Ile Ser Leu Cys Arg Gly Gly Gly Cys Gly Val Ser Thr Ala  
 325 330 335  
 Asn Gly Lys Gly Val Lys Ile Glu Phe Asp Glu Asp Asp Gly Pro Ile  
 340 345 350  
 Thr Val Ala Asp Ala Trp Arg Ala Leu Lys Asn Pro Ser Ile Gly Glu  
 355 360 365  
 Ser Ser Ile Glu Gly Leu Thr Ser Val Leu Ser Thr Ser Gly Ser Pro  
 370 375 380  
 Thr Asp Gly Leu Ser Val Met Gln Gly Pro Tyr Ser Glu Thr Ala Ser  
 385 390 395 400  
 Phe Ala Ala Leu Ser Gly Gly Thr Leu Ser Gly Gly Ile Leu Ser Ser  
 405 410 415  
 Gly Lys Gly Lys Tyr Ser Arg Leu Glu Val Gln Ala Asp Val Gln Lys  
 420 425 430

## 4215

Glu Ile Phe Pro Lys Asp Thr Ala Ser Leu Gly Ala Ile Ser Asp Asn  
 435 440 445

Ala Ser Thr Arg Ala Met Ala Gly Ser Ile Ile Ser Ser Tyr Asn Pro  
 450 455 460

Gln Asp Arg Glu Cys Asn Asn Met Glu Ile Gln Val Asp Ile Glu Ala  
 465 470 475 480

Lys Pro Ser His Tyr Gln Leu Val Ser Gly Ser Ser Thr Glu Asp Ser  
 485 490 495

Leu His Val His Ala Gln Met Ala Glu Asn Glu Glu Glu Gly Ser Gly  
 500 505 510

Gly Gly Gly Ser Glu Glu Asp Pro Pro Cys Arg His Gln Ser Cys Glu  
 515 520 525

Gln Lys Asp Cys Leu Ala Ser Lys Pro Trp Asp Ile Ser Leu Ala Gln  
 530 535 540

Pro Glu Ser Ile Arg Ser Asp Leu Glu Ser Ser Asp Ala Gln Ser Asp  
 545 550 555 560

Asp Val Pro Asp Ile Thr Ser Asp Glu Cys Gly Ser Pro Arg Ser His  
 565 570 575

Thr Ala Ala Cys Pro Ser Thr Pro Arg Ala Gln Gly Ala Pro Ser Pro  
 580 585 590

Ser Ala His Met Asn Leu Ser Ala Leu Ala Glu Gly Gln Thr Val Leu  
 595 600 605

Lys Pro Glu Gly Gly Glu Ala Arg Val  
 610 615

<210> 4640

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4640

Arg Trp Arg Gly Ser Met Ser Gly Ser Met Ala Thr Ala Glu Ala Ser  
 1 5 10 15

Gly Ser Asp Gly Lys Gly Gln Glu Val Glu Thr Ser Val Thr Tyr Tyr  
 20 25 30

Arg Leu Glu Glu Val Ala Lys Arg Asn Ser Leu Lys Glu Leu Trp Leu

## 4216

35                      40                      45  
 Val Ile His Gly Arg Val Tyr Asp Val Thr Arg Phe Leu Asn Glu His  
     50                      55                      60  
 Pro Gly Gly Glu Glu Val Leu Leu Glu Gln Ala Gly Val Asp Ala Ser  
     65                      70                      75                      80  
 Glu Ser Phe Glu Asp Val Gly His Ser Ser Asp Ala Arg Glu Met Leu  
                     85                      90                      95  
 Lys Gln Tyr Tyr Ile Gly Asp Ile His Pro Ser Asp Leu Lys Pro Glu  
                     100                      105                      110  
 Ser Gly Ser Lys Asp Pro Ser Lys Asn Asp Thr Cys Lys Ser Cys Trp  
                     115                      120                      125  
 Ala Tyr Trp Ile Leu Pro Ile Ile Gly Ala Val Leu Leu Gly Phe Leu  
     130                      135                      140  
 Tyr Arg Tyr Tyr Thr Ser Glu Ser Lys Ser Ser  
 145                      150                      155

&lt;210&gt; 4641

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4641

Ser Gln Thr Pro His Tyr Ser Ser Leu Glu Leu Leu Ile Lys Glu Asn  
     1                      5                      10                      15  
 Trp Lys Tyr Ile Cys Pro Cys Leu Asn Phe Ile Ala Leu Ile Cys Val  
                     20                      25                      30  
 Ile Ser Leu Leu Thr Gly Arg Gly Thr Ser Phe Phe Pro Tyr  
     35                      40                      45

&lt;210&gt; 4642

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



4217

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (335)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4642

Val Glu Trp Asn Arg Leu Phe Ala Gly Leu Leu Glu Glu Gln Arg Gln  
 1 5 10 15

Arg Ser Glu Asp Ser Met Tyr Thr Ala Ile Pro Gln Ser Gly Ser Pro  
 20 25 30

Phe Pro Gly Ser Val Gln Asp Pro Gly Leu His Val Trp Arg Val Glu  
 35 40 45

Lys Leu Lys Pro Val Pro Val Ala Gln Glu Asn Gln Gly Val Phe Phe  
 50 55 60

Ser Gly Asp Ser Tyr Leu Val Leu His Asn Gly Pro Glu Glu Val Ser  
 65 70 75 80

His Leu His Leu Asn Thr Leu Leu Gly Glu Arg Pro Val Gln His Arg  
 85 90 95

Glu Val Xaa Gly Asn Glu Ser Asp Leu Phe Met Ser Tyr Phe Pro Arg  
 100 105 110

Gly Leu Lys Tyr Gln Glu Gly Gly Val Glu Ser Ala Phe His Lys Thr  
 115 120 125

Ser Thr Gly Ala Pro Ala Ala Ile Lys Lys Leu Tyr Gln Val Lys Gly  
 130 135 140

Lys Lys Asn Ile Arg Ala Thr Glu Arg Ala Leu Asn Trp Asp Ser Phe  
 145 150 155 160

Asn Thr Gly Asp Cys Phe Ile Leu Asp Leu Gly Gln Asn Ile Phe Ala  
 165 170 175

Trp Cys Gly Gly Lys Ser Asn Ile Leu Glu Arg Asn Lys Ala Arg Asp  
 180 185 190

Leu Ala Leu Ala Ile Arg Asp Ser Glu Arg Gln Gly Lys Ala Gln Val  
 195 200 205

Glu Ile Val Thr Asp Gly Glu Glu Pro Ala Glu Met Ile Gln Val Leu  
 210 215 220

Gly Pro Lys Pro Ala Leu Lys Glu Gly Asn Pro Glu Glu Asp Leu Thr  
 225 230 235 240

## 4218

Ala Asp Lys Ala Asn Ala Gln Ala Ala Ala Leu Tyr Lys Val Ser Asp  
                   245                  250                  255

Ala Thr Gly Gln Met Asn Leu Thr Lys Val Ala Asp Ser Ser Pro Phe  
                   260                  265                  270

Ala Leu Glu Leu Leu Ile Ser Asp Asp Cys Phe Val Leu Asp Asn Gly  
                   275                  280                  285

Leu Cys Gly Lys Ile Tyr Ile Trp Lys Gly Arg Lys Ala Asn Glu Lys  
                   290                  295                  300

Glu Arg Gln Ala Ala Leu Gln Val Ala Glu Gly Phe Ile Ser Arg Met  
                   305                  310                  315                  320

Gln Tyr Ala Pro Asn Thr Gln Val Glu Ile Leu Pro Gln Gly Xaa Glu  
                   325                  330                  335

Ser Pro Ile Phe Lys Gln Phe Phe Lys Asp Trp Lys  
                   340                  345

&lt;210&gt; 4643

&lt;211&gt; 389

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (376)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4643

Phe Gln Gly Lys Ile Asp Ala Ala Tyr Phe Glu Thr Ser Lys Tyr Leu  
   1                  5                  10                  15

Leu Asp Val Leu Asn Lys Lys Tyr Ser Leu Leu Asp His Met Gln Ala  
                   20                  25                  30

Met Arg Arg Tyr Leu Leu Leu Gly Gln Gly Asp Phe Ile Arg His Leu  
                   35                  40                  45

Met Asp Leu Leu Lys Pro Glu Leu Val Arg Pro Ala Thr Thr Leu Tyr  
                   50                  55                  60

Gln His Asn Leu Thr Gly Ile Leu Glu Thr Ala Val Arg Ala Thr Asn  
                   65                  70                  75                  80

Ala Gln Phe Asp Ser Pro Glu Ile Leu Arg Arg Leu Asp Val Arg Leu

85

90

95

Tyr His Val Asp Gly Pro Ile Ala Thr Val Phe Thr Arg Glu Cys Met  
115 120 125

Ser His Tyr Leu Arg Val Phe Asn Phe Leu Trp Arg Ala Lys Arg Met  
130 135 140

Glu Tyr Ile Leu Thr Asp Ile Arg Lys Gly His Met Cys Asn Ala Lys  
145 150 155 160

Leu Leu Arg Asn Met Pro Glu Phe Ser Gly Val Leu His Gln Cys His  
165 170 175

Ile Leu Ala Ser Glu Met Val His Phe Ile His Gln Met Gln Tyr Tyr  
180 185 190

Ile Thr Phe Glu Val Leu Glu Cys Ser Trp Asp Glu Leu Trp Asn Lys  
195 200 205

```
Val Gln Gln Ala Gln Asp Leu Asp His Ile Ile Ala Ala His Glu Val
      210                      215                      220
```

Phe Leu Asp Thr Ile Ile Ser Arg Cys Leu Leu Asp Ser Asp Ser Arg  
225 230 235 240

Ala Leu Leu Asn Gln Leu Arg Ala Val Phe Asp Gln Ile Ile Glu Leu  
245 250 255

Gln Asn Ala Gln Asp Ala Ile Tyr Arg Ala Ala Leu Glu Glu Leu Gln  
260 265 270

Arg Arg Leu Gln Phe Glu Glu Lys Lys Lys Gln Arg Glu Ile Glu Gly  
275 280 285

Gln Trp Gly Val Thr Ala Ala Glu Glu Glu Glu Glu Asn Lys Arg Ile  
290 295 300

Gly Glu Phe Lys Glu Ser Ile Pro Lys Met Cys Ser Gln Leu Arg Ile  
305 310 315 320

Leu Thr His Phe Tyr Gln Gly Ile Val Gln Gln Phe Leu Val Leu Leu  
325 330 335

Thr Thr Ser Ser Asp Glu Ser Leu Arg Phe Leu Ser Phe Arg Leu Asp  
340 345 350

Phe Asn Glu His Tyr Lys Ala Arg Glu Pro Arg Leu Arg Cys Val Ser

4220

355 360 365

Gly Tyr Gln Gly Ala Ala Gln Xaa Pro His Val Lys Leu Ala Val Leu

370 375 380

Pro Gly Ser Cys Gly

385

&lt;210&gt; 4644

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4644

Phe Cys Pro Ser Arg Leu Cys Phe Leu Pro Phe Leu Cys Ser Arg Ala

1 5 10 15

Ala Ile Ser Arg Asp Pro Phe Tyr Glu Met Leu Ala Ala Arg Lys Lys

20 25 30

Lys Val Ser Ser Thr Lys Arg His

35 40

&lt;210&gt; 4645

&lt;211&gt; 353

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4645

Arg Lys Gln Cys Gln Asp Ser Lys Asp Ser Asn His Leu Pro Lys Met

1 5 10 15

Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly Thr Ser

20 25 30

Gly Gln Tyr Tyr Asp Tyr Asp Phe Pro Leu Ser Ile Tyr Gly Gln Ser

35 40 45

Ser Pro Asn Cys Ala Pro Glu Cys Asn Cys Pro Glu Ser Tyr Pro Ser

50 55 60

Ala Met Tyr Cys Asp Glu Leu Lys Leu Lys Ser Val Pro Met Val Pro

65 70 75 80

Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His Ile

85 90 95

## 4221

Asp	Glu	Lys	Ala	Phe	Glu	Asn	Val	Thr	Asp	Leu	Gln	Trp	Leu	Ile	Leu	100	105	110	
Asp	His	Asn	Leu	Leu	Glu	Asn	Ser	Lys	Ile	Lys	Gly	Arg	Val	Phe	Ser	115	120	125	
Lys	Leu	Lys	Gln	Leu	Lys	Lys	Leu	His	Ile	Asn	His	Asn	Asn	Leu	Thr	130	135	140	
Glu	Ser	Val	Gly	Pro	Leu	Pro	Lys	Ser	Leu	Glu	Asp	Leu	Gln	Leu	Thr	145	150	155	160
His	Asn	Lys	Ile	Thr	Lys	Leu	Gly	Ser	Phe	Glu	Gly	Leu	Val	Asn	Leu	165	170	175	
Thr	Phe	Ile	His	Leu	Gln	His	Asn	Arg	Leu	Lys	Glu	Asp	Ala	Val	Ser	180	185	190	
Ala	Ala	Phe	Lys	Gly	Leu	Lys	Ser	Leu	Glu	Tyr	Leu	Asp	Leu	Ser	Phe	195	200	205	
Asn	Gln	Ile	Ala	Arg	Leu	Pro	Ser	Gly	Leu	Pro	Val	Ser	Leu	Leu	Thr	210	215	220	
Leu	Tyr	Leu	Asp	Asn	Asn	Lys	Ile	Ser	Asn	Ile	Pro	Asp	Glu	Tyr	Phe	225	230	235	240
Lys	Arg	Phe	Asn	Ala	Leu	Gln	Tyr	Leu	Arg	Leu	Ser	His	Asn	Glu	Leu	245	250	255	
Ala	Asp	Ser	Gly	Ile	Pro	Gly	Asn	Ser	Phe	Asn	Val	Ser	Ser	Leu	Val	260	265	270	
Glu	Leu	Asp	Leu	Ser	Tyr	Asn	Lys	Leu	Lys	Asn	Ile	Pro	Thr	Val	Asn	275	280	285	
Glu	Asn	Leu	Glu	Asn	Tyr	Tyr	Leu	Glu	Val	Asn	Gln	Leu	Glu	Lys	Phe	290	295	300	
Asp	Ile	Lys	Ser	Phe	Cys	Lys	Ile	Leu	Gly	Pro	Leu	Ser	Tyr	Ser	Lys	305	310	315	320
Ile	Lys	His	Leu	Arg	Leu	Asp	Gly	Asn	Arg	Ile	Ser	Glu	Thr	Ser	Leu	325	330	335	
Pro	Pro	Asp	Met	Tyr	Glu	Cys	Leu	Arg	Val	Ala	Asn	Glu	Val	Thr	Leu	340	345	350	
Asn																			

4222

<210> 4646  
<211> 54  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (21)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (43)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4646  
Glu Glu Gln Lys Gly Glu Ile Asn Gly Lys Thr Lys Asn Thr Gln Ile  
1 5 10 15  
Cys Gly Phe Gly Xaa Asn Glu Thr Arg Phe Ile Tyr Leu Lys Lys Cys  
20 25 30  
Trp Cys Ser Asn Thr Lys His Tyr Phe His Xaa Glu Lys Ile Thr Tyr  
35 40 45  
Leu Leu Pro Ser Val Leu  
50

<210> 4647  
<211> 38  
<212> PRT  
<213> Homo sapiens

<400> 4647  
Asn Met Tyr Ser Gly Arg Leu Gln Trp Leu Thr Pro Val Ile Pro Ala  
1 5 10 15  
Leu Trp Gln Ala Glu Met Gly Gly Ser Phe Glu Val Arg Ser Leu Arg  
20 25 30  
Pro Ala Trp Pro Thr Trp  
35

<210> 4648  
<211> 515

4223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4648

Gly Glu Trp Pro Lys Ser Leu Arg Ile Pro Glu Gly Pro Ile Asp Gln  
 1 5 10 15

Gly Pro Ala Ile Gly Arg Val Arg Val Leu Glu Glu Gln Leu Val Lys  
 20 25 30

Ala Lys Glu Gln Ile Glu Asn Tyr Lys Lys Gln Thr Arg Asn Gly Leu  
 35 40 45

Gly Lys Asp His Glu Ile Leu Arg Arg Arg Ile Glu Asn Gly Ala Lys  
 50 55 60

Glu Leu Trp Phe Phe Leu Gln Ser Glu Leu Lys Lys Leu Lys Asn Leu  
 65 70 75 80

Glu Gly Asn Glu Leu Gln Arg His Ala Asp Glu Phe Leu Leu Asp Leu  
 85 90 95

Gly His His Glu Arg Ser Ile Met Thr Asp Leu Tyr Tyr Leu Ser Gln  
 100 105 110

Thr Asp Gly Ala Gly Asp Trp Arg Glu Lys Glu Ala Lys Asp Leu Thr  
 115 120 125

Glu Leu Val Gln Arg Arg Ile Thr Tyr Leu Gln Asn Pro Lys Asp Cys  
 130 135 140

Ser Lys Ala Lys Lys Leu Val Cys Asn Ile Asn Lys Gly Cys Gly Tyr  
 145 150 155 160

Gly Cys Gln Leu His His Val Val Tyr Cys Phe Met Ile Ala Tyr Gly  
 165 170 175

Thr Gln Arg Thr Leu Ile Leu Glu Ser Gln Asn Trp Arg Tyr Ala Thr  
 180 185 190

Gly Gly Trp Glu Thr Val Phe Arg Pro Val Ser Glu Thr Cys Thr Asp  
 195 200 205

Arg Ser Gly Ile Ser Thr Gly His Trp Ser Gly Glu Val Lys Asp Lys  
 210 215 220

Asn Val Gln Val Val Glu Leu Pro Ile Val Asp Ser Leu His Pro Arg  
 225 230 235 240

Pro Pro Tyr Leu Pro Leu Ala Val Pro Glu Asp Leu Ala Asp Arg Leu  
 245 250 255

4224

Val Arg Val His Gly Asp Pro Ala Val Trp Trp Val Ser Gln Phe Val  
 260 265 270

Lys Tyr Leu Ile Arg Pro Gln Pro Trp Leu Glu Lys Glu Ile Glu Glu  
 275 280 285

Ala Thr Lys Lys Leu Gly Phe Lys His Pro Val Ile Gly Val His Val  
 290 295 300

Arg Arg Thr Asp Lys Val Gly Thr Glu Ala Ala Phe His Pro Ile Glu  
 305 310 315 320

Glu Tyr Met Val His Val Glu Glu His Phe Gln Leu Leu Ala Arg Arg  
 325 330 335

Met Gln Val Asp Lys Lys Arg Val Tyr Leu Ala Thr Asp Asp Pro Ser  
 340 345 350

Leu Leu Lys Glu Ala Lys Thr Lys Tyr Pro Asn Tyr Glu Phe Ile Ser  
 355 360 365

Asp Asn Ser Ile Ser Trp Ser Ala Gly Leu His Asn Arg Tyr Thr Glu  
 370 375 380

Asn Ser Leu Arg Gly Val Ile Leu Asp Ile His Phe Leu Ser Gln Ala  
 385 390 395 400

Asp Phe Leu Val Cys Thr Phe Ser Ser Gln Val Cys Arg Val Ala Tyr  
 405 410 415

Glu Ile Met Gln Thr Leu His Pro Asp Ala Ser Ala Asn Phe His Ser  
 420 425 430

Leu Asp Asp Ile Tyr Tyr Phe Gly Gly Gln Asn Ala His Asn Gln Ile  
 435 440 445

Ala Ile Tyr Ala His Gln Pro Arg Thr Ala Asp Glu Ile Pro Met Glu  
 450 455 460

Pro Gly Asp Ile Ile Gly Val Ala Gly Asn His Trp Asp Gly Tyr Ser  
 465 470 475 480

Lys Gly Val Asn Arg Lys Leu Gly Arg Thr Gly Leu Tyr Pro Ser Tyr  
 485 490 495

Lys Val Arg Glu Lys Ile Glu Thr Val Lys Tyr Pro Thr Tyr Pro Glu  
 500 505 510

Ala Glu Lys  
 515



4225

&lt;210&gt; 4649

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4649

Ala Ala Gly Val Pro Val Phe Asp Phe Ser Val Asn Met Leu Phe Val  
 1 5 10 15

His Ile Ser Thr Trp Trp Arg Pro Tyr Ser Leu Phe His Leu Pro Asn  
 20 25 30

Asn Gly Lys Asn Ile Lys Val Asn Gln Cys Ala Leu Gly Ile Gln  
 35 40 45

&lt;210&gt; 4650

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4650

Cys Ile Val Ile Ile Tyr Asp Arg Ser Ser His Phe Phe Leu Leu Lys  
 1 5 10 15

Lys Ile Thr Leu Ser Pro Val Gly Asn Gly Ile Leu Trp Ala Phe Lys  
 20 25 30

Arg Lys Phe Tyr Glu Thr  
 35

&lt;210&gt; 4651

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4651

Gly Thr Ser Tyr Gly Leu Pro Arg Tyr Arg Trp Leu Thr His Ala Trp  
 1 5 10 15

Asn Phe Phe Gln Arg Glu Phe Lys Cys Cys Gly Val Val Tyr Phe Thr  
 20 25 30

Asp Trp Leu Glu Met Thr Glu Met Asp Trp Pro Pro Asp Ser Cys Cys  
 35 40 45

4226

Val Arg Glu Phe Pro Gly Cys Ser Lys Gln Ala His Gln Glu Asp Leu  
 50 55 60  
 Ser Asp Leu Tyr Gln Glu Gly Cys Gly Lys Lys Met Tyr Ser Phe Leu  
 65 70 75 80  
 Arg Gly Thr Lys Gln Leu Gln Val Leu Arg Phe Leu Gly Ile Ser Ile  
 85 90 95  
 Gly Val Thr Gln Ile Leu Ala Met Ile Leu Thr Ile Thr Leu Leu Trp  
 100 105 110  
 Ala Leu Tyr Tyr Asp Arg Arg Glu Pro Gly Thr Asp Gln Met Met Ser  
 115 120 125  
 Leu Lys Asn Asp Asn Ser Gln His Leu Ser Cys Pro Ser Val Glu Leu  
 130 135 140  
 Leu Lys Pro Ser Leu Ser Arg Ile Phe Glu His Thr Ser Met Ala Asn  
 145 150 155 160  
 Ser Phe Asn Thr His Phe Glu Met Glu Glu Leu  
 165 170

&lt;210&gt; 4652

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4652

Ser Leu Gly Glu Leu Pro Thr Asp Pro Ser Ser Asp Glu Pro Val Phe  
 1 5 10 15  
 His Ile Ser His Ile Asp Arg Val Tyr Thr Leu Arg Thr Asp Asn Ile  
 20 25 30  
 Asn Glu Arg Thr Thr Trp Val Gln Lys Ile Lys Ala Ala Ser Glu Gln  
 35 40 45  
 Tyr Ile Asp Thr Glu Lys Lys Lys Arg Glu Lys Ala Tyr Gln Ala Arg  
 50 55 60  
 Ser Gln Lys Thr Ser Gly Ile Gly Arg Leu Met Val His Val Ile Glu  
 65 70 75 80  
 Ala Thr Glu Leu Lys Ala Cys Lys Pro Asn Gly Lys Ser Asn Pro Tyr  
 85 90 95

## 4227

Cys Glu Ile Ser Met Gly Ser Gln Ser Tyr Thr Thr Arg Thr Ile Gln  
 100 105 110

Asp Thr Leu Asn Pro Lys Trp Asn Phe Asn Cys Gln Phe Phe Ile Lys  
 115 120 125

Asp Leu Tyr Gln Asp Val Leu Cys Leu Thr Leu Phe Asp Arg Asp Gln  
 130 135 140

Phe Ser Pro Asp Asp Phe Leu Gly Arg Thr Glu Ile Pro Val Ala Lys  
 145 150 155 160

Ile Arg Thr Glu Gln Glu Ser Lys Gly Pro Met Thr Arg Arg Leu Leu  
 165 170 175

Leu His Glu Val Pro Thr Gly Glu Val Trp Val Arg Phe Asp Leu Gln  
 180 185 190

Leu Phe Glu Gln Lys Thr Leu Leu  
 195 200

<210> 4653

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4653

Val Ser Pro Gly Gly Gln Gln Gly Leu His Phe Ser Glu Gly Leu Glu  
 1 5 10 15

Gly Leu Val Glu Leu Leu Gly Gln Arg Ser Arg Ser Arg Glu Asn Ile  
 20 25 30

Arg Pro Ser Asp Leu Ser Ser Ala Leu Arg Ala Leu Pro Glu Ser Ser  
 35 40 45

Ser Arg Gly Leu Gln Ser Leu Arg Lys Pro Ser Gln Arg Ala Ala Pro  
 50 55 60

Thr Ser Gln Ala Val Cys Thr Ser Pro Cys Tyr Ala Leu Leu Cys Asn  
 65 70 75 80

Ile Leu Gln Gln Ser Ala Val His Gly Val Cys  
 85 90

<210> 4654

<211> 44

4228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4654

Ser Gln His Phe Ala Arg Pro Arg Arg Val Asp His Leu Arg Ser Gly  
1 5 10 15

Val Arg Asp Gln Pro Asp Gln His Gly Glu Thr Pro Ser Leu Leu Lys  
20 25 30

Ile Gln Lys Leu Ala Trp His Gly Gly Ala Cys Leu  
35 40

&lt;210&gt; 4655

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4655

Thr Leu Arg Val Arg Thr Gly Ser Tyr Ser Ser Leu Cys Ala Phe Leu  
1 5 10 15

Met Leu Gln Arg Ile Tyr His Leu Met Glu Glu Asn Ile Cys Lys Leu  
20 25 30

Ala Pro Tyr Gln Ala Pro Ser Thr Tyr Ser Thr His Leu Asn Phe Glu  
35 40 45

Cys Arg Ile Phe Lys Leu Gln Pro His Ile Leu Arg Ser Arg Lys Asn  
50 55 60

Leu Met Gly Ile Asn Leu His Pro Leu Ala Leu Pro  
65 70 75

&lt;210&gt; 4656

&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4656

Ala His Ala Ser Thr His Ala Ser Gly Ser Val Ser Pro Cys Arg Gln  
1 5 10 15

Leu His Phe Pro Leu Phe Leu Phe Pro Phe Pro Ser Arg Pro Arg Ala  
20 25 30

Pro Pro Ser Leu Val Gly Trp Ser Arg Ser Pro Cys Ala Phe Ser Leu

4229

35	40	45
Leu Gly Ser Cys Val Arg Ala Cys Pro Ala Met Asn Glu Glu Tyr Asp		
50	55	60
Val Ile Val Leu Gly Thr Gly Leu Thr Glu Cys Ile Leu Ser Gly Ile		
65	70	75
Met Ser Val Asn Gly Lys Lys Val Leu His Met Asp Arg Asn Pro Tyr		
85	90	95
Tyr Gly Gly Glu Ser Ala Ser Ile Thr Pro Leu Glu Asp Leu Tyr Lys		
100	105	110
Arg Phe Lys Ile Pro Gly Ser Pro Pro Glu Ser Met Gly Arg Gly Arg		
115	120	125
Asp Trp Asn Val Asp Leu Ile Pro Lys Phe Leu Met Ala Asn Gly Gln		
130	135	140
Leu Val Lys Met Leu Leu Tyr Thr Glu Val Thr Arg Tyr Leu Asp Phe		
145	150	155
Lys Val Thr Glu Gly Ser Phe Val Tyr Lys Gly Gly Lys Ile Tyr Lys		
165	170	175
Val Pro Ser Thr Glu Ala Glu Ala Leu Ala Ser Ser Leu Met Gly Leu		
180	185	190
Phe Glu Lys Arg Arg Phe Arg Lys Phe Leu Val Tyr Val Ala Asn Phe		
195	200	205
Asp Glu Lys Asp Pro Arg Thr Phe Glu Gly Ile Asp Pro Lys Lys Thr		
210	215	220
Thr Met Arg Asp Val Tyr Lys Lys Phe Asp Leu Gly Gln Asp Val Ile		
225	230	235
Asp Phe Thr Gly His Ala Leu Ala Leu Tyr Arg Thr Asp Asp Tyr Leu		
245	250	255
Asp Gln Pro Cys Tyr Glu Thr Ile Asn Arg Ile Lys Leu Tyr Tyr Cys		
260	265	270
Gly Lys Thr Thr Val Leu Ile Lys Asp Leu His Ser		
275	280	

&lt;210&gt; 4657

&lt;211&gt; 125

## 4230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4657

```

Asp Gly Val Leu Leu Leu Pro Arg Leu Glu Trp Ser Ala Trp Cys Asp
 1           5           10           15
Leu Gly Ser Leu Gln Thr Pro Pro Pro Gly Phe Lys Arg Phe Ser Trp
          20           25           30
Pro Ser Leu Leu Ser Ser Trp Asp Tyr Arg Cys Val Pro Pro Cys Pro
          35           40           45
Ala Asn Phe Cys Val Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro
          50           55           60
Ala Gly Leu Glu Leu Leu Thr Ser Gly Tyr Met Pro Thr Ser Thr Ser
          65           70           75           80
Gln Ser Ala Gly Ile Thr Gly Met Ser His Cys Ala Gln Pro Gly Ile
          85           90           95
Asp Asn Leu Tyr Ser Asp Asn Leu Leu Trp Leu Phe Asn Ile Pro Gln
          100          105          110
Gly Ala Leu Lys Ser Lys His Ser Arg Val Cys Ser Phe
          115          120          125

```

&lt;210&gt; 4658

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4658

```

Trp Arg Gly Val Gly Xaa Ala Arg Lys Lys Glu Asn Ser Pro Leu Gly
 1           5           10           15
Lys Lys Glu Glu Glu His Trp Ile Leu Thr Phe Trp Ile Leu Thr Leu
          20           25           30
Gly Cys Lys Thr Tyr Leu Pro Leu Ser Arg Leu Pro Ser Pro Ser Thr
          35           40           45
Leu Asn Val Leu Leu Ser Phe Ser Val Ser Ala Pro Ser Ser Pro Phe

```

## 4231

50                      55                      60  
 Pro Leu Pro Pro Pro His Thr Leu His Pro Leu Cys Pro Gly Pro Ser  
 65                      70                      75                      80  
 Glu Gly His Cys Arg  
 85

<210> 4659  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 4659  
 Val Asp Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg Pro Arg  
 1                      5                      10                      15  
 Val Arg Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 20                      25                      30  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Gly  
 35                      40

<210> 4660  
 <211> 86  
 <212> PRT  
 <213> Homo sapiens

<400> 4660  
 Asp Ile Thr Ala Lys Leu Gly Ile Gly Glu Met Ala Glu Thr Asp Pro  
 1                      5                      10                      15  
 Lys Thr Val Gln Asp Leu Thr Ser Val Val Gln Thr Leu Leu Gln Gln  
 20                      25                      30  
 Met Gln Asp Lys Phe Gln Thr Met Ser Asp Gln Ile Ile Gly Arg Ile  
 35                      40                      45  
 Asp Asp Met Ser Ser Arg Ile Asp Asp Leu Glu Lys Asn Ile Ala Asp  
 50                      55                      60  
 Leu Met Thr Gln Ala Gly Val Glu Glu Leu Glu Ser Glu Asn Lys Ile  
 65                      70                      75                      80  
 Pro Ala Thr Gln Lys Ser  
 85

## 4232

&lt;210&gt; 4661

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4661

Arg	Arg	Glu	Gly	Cys	Arg	Arg	Pro	Arg	Gly	Ser	Arg	Ala	Gly	Gly	Ala
1				5					10					15	

Ala	Ala	Ala	Ala	Met	Gln	Glu	Ile	Ile	Ala	Ser	Val	Asp	His	Ile	Lys
			20					25					30		

Phe	Asp	Leu	Glu	Ile	Ala	Val	Glu	Gln	Gln	Leu	Gly	Ala	Gln	Pro	Leu
		35					40					45			

Pro	Xaa	Gln	Thr	Gln	Pro	Pro	Ala	Lys	Xaa	Xaa	Thr	Pro	Gln	Val	Ile
	50					55					60				

Gly	Val	Met	Gln	Ser	Gln	Asn	Ser	Ser	Ala	Gly	Asn	Arg	Gly	Pro	Arg
65					70					75					80

Pro	Leu	Glu	Gln	Val	Thr	Cys	Tyr	Lys	Cys	Gly	Glu	Lys	Gly	His	Tyr
				85					90					95	

Ala	Asn	Arg	Cys	Thr	Lys	Gly	His	Leu	Ala	Phe	Leu	Ser	Gly	Gln	
			100					105					110		

&lt;210&gt; 4662

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



## 4233

&lt;400&gt; 4662

Ser His Phe Val Cys Cys Val Lys Gln Lys Ala Leu Met Lys Lys Gln  
 1 5 10 15

Lys Val Met Tyr Val Tyr Glu Lys Ile Asn Cys Thr Ile Ser Phe Gln  
 20 25 30

Tyr Val Leu Leu Tyr Ile Leu Val Leu Phe Thr Phe Ser Ser Leu Leu  
 35 40 45

Arg Gly Cys Glu Leu Tyr Ser Phe Gln Leu Val Thr His Ile Arg Glu  
 50 55 60

Glu Ile Arg Glu Tyr  
 65

&lt;210&gt; 4663

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (205)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4663

Gly Ala Val Ala Ala Arg Ala Ile Arg Leu Thr His Leu Ala Pro  
 1 5 10 15

Val Pro Gln Asp Gln Ser Gly Ala Gly Arg Glu Gly Glu Glu Ala Arg  
 20 25 30

Ala Arg Arg Ala Arg Val Arg Ile Gly Ala Gly Arg Ser Arg Asp Leu  
 35 40 45

Gly Ser Gly Arg Gly Gly Cys Glu Arg Ala Ala Asn Arg Ala Gly Gly  
 50 55 60

Gly Arg Ala His His Gly Gly Glu Thr Arg Asp Gln Leu Thr Val Tyr  
 65 70 75 80

Leu Gly Lys Arg Asp Phe Val Asp His Leu Asp Lys Val Asp Pro Val  
 85 90 95

## 4234

Asp Gly Val Val Leu Val Asp Pro Asp Tyr Leu Lys Asp Arg Lys Val  
 100 105 110  
 Phe Val Thr Leu Thr Cys Ala Phe Arg Tyr Gly Arg Glu Asp Leu Asp  
 115 120 125  
 Val Leu Gly Leu Ser Phe Arg Lys Asp Leu Phe Ile Ala Thr Tyr Gln  
 130 135 140  
 Ala Phe Pro Pro Val Pro Asn Pro Pro Arg Pro Pro Thr Arg Leu Gln  
 145 150 155 160  
 Asp Arg Leu Leu Arg Lys Leu Gly Gln His Ala Xaa Pro Phe Phe Phe  
 165 170 175  
 Thr Ile Pro Gln Asn Leu Pro Cys Ser Val Thr Leu Gln Pro Gly Pro  
 180 185 190  
 Glu Asp Thr Gly Lys Ala Cys Gly Val Asp Phe Glu Xaa Glu Pro Ser  
 195 200 205  
 Val Leu Asn His  
 210

&lt;210&gt; 4664

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4664

Ala Ala Asn Lys Lys Asn Glu Ala Arg Leu Arg Ile Val Lys Thr Leu  
 1 5 10 15  
 Glu Asp Ile Asp Leu Gly Pro Thr Glu Lys Cys Val Arg Val Asn Ser  
 20 25 30  
 Val Ser Ser Gly Leu Ala Glu Glu Asp Leu Glu Thr Leu Leu Gln Ser  
 35 40 45  
 Arg Val Leu Pro Ser Ser Leu Met Leu Pro Lys Val Glu Ser Pro Glu  
 50 55 60  
 Glu Ile Gln Trp Phe Ala Asp Lys Phe Ser Phe His Leu Lys Gly Arg  
 65 70 75 80  
 Lys Leu Glu Gln Pro Met Asn Leu Ile Pro Phe Val Glu Thr Ala Met  
 85 90 95

## 4235

Gly Leu Leu Asn Phe Lys Ala Val Cys Glu Glu Thr Leu Lys Val Gly  
                   100                                  105                                  110

Pro Gln Val Gly Leu Phe Leu Asp Ala Val Val Phe Gly Arg Arg Arg  
                   115                                  120                                  125

Leu Ser Ser Gln His Arg Cys Asn Lys  
                   130                                  135

<210> 4665

<211> 197

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (168)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (172)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4665

Val Ile Cys Met Trp Gln Gly Cys Ala Val Glu Arg Pro Val Gly Arg  
           1                                  5                                  10                                  15

Met Thr Ser Gln Thr Pro Leu Pro Gln Ser Pro Arg Pro Arg Arg Pro  
                   20                                  25                                  30

Thr Met Ser Thr Val Val Glu Leu Asn Val Gly Gly Glu Phe His Thr  
           35                                  40                                  45

Thr Thr Leu Gly Thr Leu Arg Lys Phe Pro Gly Ser Lys Leu Ala Glu  
           50                                  55                                  60

Met Phe Ser Ser Leu Ala Lys Ala Ser Thr Asp Ala Glu Gly Arg Phe  
           65                                  70                                  75                                  80

Phe Ile Asp Arg Pro Ser Thr Tyr Phe Arg Pro Ile Leu Asp Tyr Leu  
                   85                                  90                                  95

Arg Thr Gly Gln Val Pro Thr Gln His Ile Pro Glu Val Tyr Arg Glu  
           100                                  105                                  110

Ala Gln Phe Tyr Glu Ile Lys Pro Leu Val Lys Leu Leu Glu Asp Met  
           115                                  120                                  125

## 4236

Pro Gln Ile Phe Gly Glu Gln Val Ser Arg Lys Gln Phe Leu Leu Gln  
 130 135 140

Val Pro Gly Tyr Ser Glu Asn Leu Glu Leu Met Val Arg Leu Ala Arg  
 145 150 155 160

Ala Glu Ala Ile Thr Ala Arg Xaa Ser Ser Val Xaa Val Cys Leu Val  
 165 170 175

Glu Thr Glu Glu Gln Asp Ala Tyr Tyr Ser Glu Val Leu Cys Phe Ser  
 180 185 190

Cys Arg Ile Arg Arg  
 195

&lt;210&gt; 4666

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4666

Gln Ser Lys Met Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg  
 1 5 10 15

Gln Phe Thr Leu Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg  
 20 25 30

Ile Glu Gln Ala Cys Xaa Pro Ala Trp Ser Ala Asp Val Ala Ala Val  
 35 40 45

Val Met Gln Glu Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met  
 50 55 60

Thr Leu Thr Arg Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys  
 65 70 75 80

Gly Asn Cys Ser Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln  
 85 90 95

Val Val Gln Ala Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys  
 100 105 110

Ile Leu Val Ala Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr  
 115 120 125

## 4237

Met Phe Gln Gln Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn  
 130 135 140  
 Arg Ser Lys Phe Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser  
 145 150 155 160  
 Leu Lys Glu Ala Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp  
 165 170 175  
 Thr Lys Ala Ala Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met  
 180 185 190  
 Leu Gln His Glu Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu  
 195 200 205  
 Lys Ala Asn Glu Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu  
 210 215 220  
 Leu Phe Arg His Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu  
 225 230 235 240  
 Val Asp Ser Val Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser  
 245 250 255  
 Leu His Val Ser Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala  
 260 265 270  
 Ile Leu Arg Phe Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser  
 275 280 285  
 Ser Ser Glu Glu Asp  
 290

&lt;210&gt; 4667

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4238

&lt;400&gt; 4667

Pro Ala Ser Thr Ala Trp Val Pro Pro Pro Gly Xaa Asp Pro Gly Pro  
 1 5 10 15

Arg Ser Leu Ala Pro Gly Trp Asp Pro Ala Pro Gly Ser Tyr Xaa Arg  
 20 25 30

Gly Ser Gln Leu Arg Arg Pro Ala Gln Pro Asp Ser Leu Lys Ala Gln  
 35 40 45

Arg Ala Gly Ser Arg Pro Pro  
 50 55

&lt;210&gt; 4668

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4668

Val Asp Pro Arg Val Xaa Pro Arg Ser Gly Gly Glu Lys Pro Gly Gly  
 1 5 10 15

Leu Gly Ala Pro Ala Gly Ile Gly Ser Arg Leu Gly Cys Glu Arg Phe  
 20 25 30

Ser Arg Ser Arg Glu Ile Leu Gln Ala Ile Thr Met Ser Thr Asp Thr  
 35 40 45

Gly Val Ser Leu Pro Ser Tyr Glu Glu Asp Gln Gly Ser Lys Leu Ile  
 50 55 60

Arg Lys Ala Lys Glu Ala Pro Phe Val Pro Val Gly Ile Ala Gly Phe  
 65 70 75 80

Ala Ala Ile Val Ala Tyr Gly Leu Tyr Lys Leu Lys Ser Arg Gly Asn  
 85 90 95

Thr Lys Met Ser Ile His Leu Ile His Met Arg Val Ala Ala Gln Gly  
 100 105 110

Phe Val Val Gly Ala Met Thr Val Gly Met Gly Tyr Ser Met Tyr Arg  
 115 120 125

Glu Phe Trp Ala Lys Pro Lys Pro

4239

130

135

&lt;210&gt; 4669

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4669

Thr	Ala	Ser	Trp	Ser	Pro	Ala	Pro	Val	Pro	Ser	Ser	Leu	Glu	Arg	Leu
1				5					10					15	

Phe	Ser	Pro	Asp	Gly	Thr	Phe	Pro	Ser	Arg	Arg	Phe	Leu	Gly	Leu	Trp
			20					25					30		

Leu	Phe	Phe	Ser	Cys	Ala	Arg	Leu	Ile	Gly	His	Leu	Leu	Ala	Ser	Ile
		35					40					45			

Ser	Val	Val	Leu	Leu	Pro	His	Phe	Leu	Phe	Cys	Cys	Phe	Ser	Val	Leu
	50					55					60				

Ser	Lys	Tyr	Leu	Leu	Cys	Ser	Trp	Leu	Pro	Phe	Xaa	Arg	Gln	Val	Phe
65					70					75					80

Ser	Phe	Pro	Leu	Ala	Leu	Leu	Leu	Ile	Trp	Leu	Leu	Pro	Thr	Lys	Ala
				85					90					95	

Cys	Ser	Val	Arg	Ile	Ser	Trp	Phe	Ser	Thr	Cys	Gln	Asn	Leu	Leu	Gln
			100					105					110		

Pro	Gln	Phe	Leu	Gly	Leu	Asn	Leu	Tyr	Val
		115				120			

&lt;210&gt; 4670

&lt;211&gt; 439

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4670

Gly	Gly	Arg	Gly	Gln	Glu	Pro	Gln	Met	Arg	Ala	Phe	Leu	Ala	Cys	Met
1				5					10					15	

Arg	Ser	Asp	Thr	Pro	Ala	Met	Leu	Asn	Pro	Ala	Asn	Val	Pro	Thr	His
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4240

20	25	30
Leu Met Val 35	Leu Cys Cys Val 40	Leu Arg Tyr Met Val Gln Trp Pro Gly 45
Ala Arg Ile 50	Leu Arg Arg Gln Glu Leu Asp Ala Phe Leu Ala Gln Ala 55	60
Leu Ser Pro Lys 65	Leu Tyr Glu Pro Asp Gln Leu Gln Glu Leu Lys Ile 70	75 80
Glu Asn Leu Asp 85	Pro Arg Gly Ile Gln Leu Ser Ala Leu Phe Met Ser 90	95
Gly Val Asp Met 100	Ala Leu Phe Ala Asn Asp Ala Cys Gly Gln Pro Ile 105	110
Pro Trp Glu His 115	Cys Cys Pro Trp Met Tyr Phe Asp Gly Lys Leu Phe 120	125
Gln Ser Lys Leu 130	Leu Lys Ala Ser Arg Glu Lys Thr Pro Leu Ile Asp 135	140
Leu Cys Asp Gly 145	Gln Ala Asp Gln Ala Ala Lys Val Glu Lys Met Arg 150	155 160
Gln Ser Val 165	Leu Glu Gly Leu Ser Phe Ser Arg Gln Ser His Thr Leu 170	175
Pro Phe Pro 180	Pro Pro Pro Ala Leu Pro Phe Tyr Pro Ala Ser Ala Tyr 185	190
Pro Arg His 195	Phe Gly Pro Val Pro Pro Ser Gln Gly Arg Gly Arg Gly 200	205
Phe Ala Gly 210	Val Cys Gly Phe Gly Gly Pro Tyr Gly Glu Thr Val Ala 215	220
Thr Gly Pro Tyr 225	Arg Ala Phe Arg Val Ala Ala Ala Ser Gly His Cys 230	235 240
Gly Ala Phe 245	Ser Gly Ser Asp Ser Ser Arg Thr Ser Lys Ser Gln Gly 250	255
Gly Val Gln 260	Pro Ile Pro Ser Gln Gly Gly Lys Leu Glu Ile Ala Gly 265	270
Thr Val Val 275	Gly His Trp Ala Gly Ser Arg Arg Gly Arg Gly Gly Arg 280	285
Gly Pro Phe 290	Pro Leu Gln Val Val Ser Val Gly Gly Pro Ala Arg Gly 295	



## 4241

290		295		300
Arg Pro Arg Gly Val Ile Ser Thr Pro Val Ile Arg Thr Phe Gly Arg				
305		310		315 320
Gly Gly Arg Tyr Tyr Gly Arg Gly Tyr Lys Asn Gln Ala Ala Ile Gln				
	325		330	335
Gly Arg Pro Pro Tyr Ala Ala Ser Ala Glu Glu Val Ala Lys Glu Leu				
	340		345	350
Lys Ser Lys Ser Gly Glu Ser Lys Ser Ser Ala Met Ser Ser Asp Gly				
	355		360	365
Ser Leu Ala Glu Asn Gly Val Met Ala Glu Glu Lys Pro Ala Pro Gln				
	370		375	380
Met Asn Gly Ser Thr Gly Asp Ala Arg Ala Pro Ser His Ser Glu Ser				
	385		390	395 400
Ala Leu Asn Asn Asp Ser Lys Thr Cys Asn Thr Asn Pro His Leu Asn				
	405		410	415
Ala Leu Ser Thr Asp Ser Ala Cys Arg Arg Glu Ala Ala Leu Glu Ala				
	420		425	430
Ala Val Leu Asn Lys Glu Glu				
	435			

&lt;210&gt; 4671

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4671

Asn Arg Lys Val Cys Arg Lys Ile Ala Ala His Gly Leu Cys Arg Lys				
1		5		10 15
Glu Ser Leu Gln Asn Leu Leu His Ser Ser Arg Lys Leu Ser Leu Gln				
	20		25	30
Val Leu Asn Phe Val His Ser Phe Gln Glu Gly Ala Ser Ile Leu Asp				
	35		40	45
Ile His Thr Glu Pro Ser Phe Ser Ser Leu Leu Ser Gln Ser Ser Tyr				
	50		55	60
Ala Asp Met Gly Val Pro Leu Pro Ala Lys Asn Leu Ile Phe Lys Asp				
	65		70	75 80

4242

Gly Val Leu Ser Glu Trp Ser Gly Arg Ser Pro Ser Ser Leu Leu Ile  
85 90 95

Ala Asn Leu His Leu Gln  
100

&lt;210&gt; 4672

&lt;211&gt; 631

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4243

&lt;222&gt; (341)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (357)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4672

Lys	Asp	Glu	Glu	Glu	Glu	Pro	Pro	Ser	Met	Thr	Gln	Leu	Leu	Arg	Arg
1				5					10					15	

Xaa	Xaa	Leu	Ser	Cys	His	Arg	Pro	Gly	Met	Trp	Ser	Val	His	Cys	Arg
			20					25					30		

Ser	Lys	Glu	Xaa	Xaa	Asp	Met	Met	Gly	Arg	Asn	Gln	Thr	Ala	Val	Arg
		35					40					45			

Glu	Glu	Met	Xaa	Leu	Leu	Ala	Asn	Tyr	Leu	Asp	Ser	Met	Tyr	Xaa	Met
	50					55					60				

Leu	Asn	Ile	Arg	Ile	Val	Leu	Val	Gly	Leu	Glu	Ile	Trp	Thr	Asn	Gly
65					70					75					80

Asn	Leu	Ile	Asn	Ile	Val	Gly	Gly	Ala	Gly	Asp	Val	Leu	Gly	Asn	Xaa
			85						90					95	

Val	Gln	Trp	Arg	Glu	Lys	Phe	Leu	Ile	Thr	Arg	Arg	Arg	His	Asp	Ser
			100					105					110		

Ala	Gln	Leu	Val	Leu	Lys	Lys	Gly	Phe	Gly	Gly	Thr	Ala	Gly	Met	Ala
		115					120					125			

Phe	Val	Gly	Thr	Val	Cys	Ser	Arg	Ser	His	Ala	Gly	Gly	Ile	Asn	Val
	130					135					140				

Phe	Gly	Gln	Ile	Thr	Val	Glu	Thr	Phe	Ala	Ser	Ile	Val	Ala	His	Glu
145					150					155					160

Leu	Gly	His	Asn	Leu	Gly	Met	Asn	His	Asp	Asp	Gly	Arg	Asp	Cys	Ser
			165						170					175	

Cys	Gly	Ala	Lys	Ser	Cys	Ile	Met	Asn	Ser	Gly	Ala	Ser	Gly	Ser	Arg
		180						185					190		

Asn	Phe	Ser	Ser	Cys	Ser	Ala	Glu	Asp	Phe	Glu	Lys	Leu	Thr	Leu	Asn
		195					200					205			

Lys	Gly	Gly	Asn	Cys	Leu	Leu	Asn	Ile	Pro	Lys	Pro	Asp	Glu	Ala	Tyr
	210					215					220				

## 4244

Ser Ala Pro Ser Cys Gly Asn Lys Leu Val Asp Ala Gly Glu Glu Cys  
 225 230 235 240

Asp Cys Gly Thr Pro Lys Glu Cys Glu Leu Asp Pro Cys Cys Glu Gly  
 245 250 255

Ser Thr Cys Lys Leu Lys Ser Phe Ala Glu Cys Ala Tyr Gly Asp Cys  
 260 265 270

Cys Lys Asp Cys Arg Phe Leu Pro Gly Gly Thr Leu Cys Arg Gly Lys  
 275 280 285

Thr Ser Glu Cys Asp Val Pro Glu Tyr Cys Asn Gly Ser Ser Gln Phe  
 290 295 300

Cys Gln Pro Asp Val Phe Ile Gln Asn Gly Tyr Pro Cys Gln Asn Asn  
 305 310 315 320

Lys Ala Tyr Cys Tyr Asn Gly Met Cys Gln Tyr Tyr Asp Ala Gln Cys  
 325 330 335

Gln Val Ile Phe Xaa Ser Lys Ala Lys Ala Ala Pro Lys Asp Cys Phe  
 340 345 350

Ile Glu Val Asn Xaa Lys Gly Asp Arg Phe Gly Asn Cys Gly Phe Ser  
 355 360 365

Gly Asn Glu Tyr Lys Lys Cys Ala Thr Gly Asn Ala Leu Cys Gly Lys  
 370 375 380

Leu Gln Cys Glu Asn Val Gln Glu Ile Pro Val Phe Gly Ile Val Pro  
 385 390 395 400

Ala Ile Ile Gln Thr Pro Ser Arg Gly Thr Lys Cys Trp Gly Val Asp  
 405 410 415

Phe Gln Leu Gly Ser Asp Val Pro Asp Pro Gly Met Val Asn Glu Gly  
 420 425 430

Thr Lys Cys Gly Ala Gly Lys Ile Cys Arg Asn Phe Gln Cys Val Asp  
 435 440 445

Ala Ser Val Leu Asn Tyr Asp Cys Asp Val Gln Lys Lys Cys His Gly  
 450 455 460

His Gly Val Cys Asn Ser Asn Lys Asn Cys His Cys Glu Asn Gly Trp  
 465 470 475 480

Ala Pro Pro Asn Cys Glu Thr Lys Gly Tyr Gly Gly Ser Val Asp Ser  
 485 490 495

## 4245

Gly Pro Thr Tyr Asn Glu Met Asn Thr Ala Leu Arg Asp Gly Leu Leu  
 500 505 510  
 Val Phe Phe Phe Leu Ile Val Pro Leu Ile Val Cys Ala Ile Phe Ile  
 515 520 525  
 Phe Ile Lys Arg Asp Gln Leu Trp Arg Ser Tyr Phe Arg Lys Lys Arg  
 530 535 540  
 Ser Gln Thr Tyr Glu Ser Asp Gly Lys Asn Gln Ala Asn Pro Ser Arg  
 545 550 555 560  
 Gln Pro Gly Ser Val Pro Arg His Val Ser Pro Val Thr Pro Pro Arg  
 565 570 575  
 Glu Val Pro Ile Tyr Ala Asn Arg Phe Ala Val Pro Thr Tyr Ala Ala  
 580 585 590  
 Lys Gln Pro Gln Gln Phe Pro Ser Arg Pro Pro Pro Pro Gln Pro Lys  
 595 600 605  
 Val Ser Ser Gln Gly Asn Leu Ile Pro Ala Arg Pro Ala Pro Ala Pro  
 610 615 620  
 Pro Leu Tyr Ser Ser Leu Thr  
 625 630

<210> 4673  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 4673  
 Met Ile Ala Thr Tyr Cys Phe Cys Cys Cys Phe Phe Ser Asp Ser Phe  
 1 5 10 15  
 Leu Ser Leu Asp Leu Phe Val Leu Ser Cys Gly Glu Trp Cys Phe Ser  
 20 25 30  
 Tyr Cys Val Ala Ala Arg Ile Arg Ile Gln Phe Leu Phe Leu Pro  
 35 40 45  
 Tyr Ser Tyr Cys Val Ala Thr Arg Ile Arg Ile Gln Phe Leu Phe Ile  
 50 55 60  
 Leu Pro Cys Ser Glu Gly Ser Leu Ile Ser Thr Lys Lys Leu Leu Glu  
 65 70 75 80  
 Ala Glu Lys Val Asn Val Ile Val His Ser Ala Phe Lys Lys Leu Phe

4246

85

90

95

Gln Leu

&lt;210&gt; 4674

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4674

Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala Leu Glu Leu Val  
 1 5 10 15

Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Val Met Asn Arg Asn  
 20 25 30

Phe Gln Met  
 35

&lt;210&gt; 4675

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4675

Phe Ser Glu Val Gln Ile Ala Leu Asn Glu Ala Lys Leu Ser Glu Glu  
 1 5 10 15

Lys Val Lys Ser Glu Cys His Arg Val Gln Glu Glu Asn Ala Arg Leu  
 20 25 30

Lys Lys Lys Lys Glu Gln Leu Gln Gln Glu Ile Glu Asp Trp Ser Lys  
 35 40 45

Leu His Ala Glu Leu Ser Glu Gln Ile Lys Ser Phe Glu Lys Ser Gln  
 50 55 60

Lys Asp Leu Glu Val Ala Leu Thr His Lys Asp Asp Asn Ile Asn Ala  
 65 70 75 80

Leu Thr Asn Cys Ile Thr Gln Leu Asn Leu Leu Glu Cys Glu Ser Glu  
 85 90 95

Ser Glu Gly Gln Asn Lys Gly Gly Asn Asp Ser Asp Glu Leu Ala Asn  
 100 105 110

## 4247

Gly Glu Val Gly Gly Asp Arg Asn Glu Lys Met Lys Asn Gln Ile Lys  
 115 120 125  
 Gln Met Met Asp Val Ser Arg Thr Gln Thr Ala Ile Ser Val Val Glu  
 130 135 140  
 Glu Asp Leu Lys Leu Leu Gln Leu Lys Leu Arg Ala Ser Val Ser Thr  
 145 150 155 160  
 Lys Cys Asn Leu Glu Asp Gln Val Lys Lys Leu Glu Asp Asp Arg Asn  
 165 170 175  
 Ser Leu Gln Ala Ala Lys Ala Gly Leu Glu Asp Glu Cys Lys Thr Leu  
 180 185 190  
 Arg Gln Lys Val Glu Ile Leu Asn Glu Leu Tyr Gln Gln Lys Glu Met  
 195 200 205  
 Ala Leu Gln Lys Lys Leu Ser Gln Glu Glu Tyr Glu Arg Gln Glu Arg  
 210 215 220  
 Glu His Arg Leu Ser Ala Ala Asp Glu Lys Ala Val Ser Ala Ala Glu  
 225 230 235 240  
 Glu Val Lys Thr Tyr Lys Arg Arg Ile Glu Glu Met Glu Asp Glu Leu  
 245 250 255  
 Gln Lys Thr Glu Arg Ser Phe Lys Asn Gln Ile Ala Thr His Glu Lys  
 260 265 270  
 Lys Ala His Glu Asn Trp Leu Lys Ala Arg Ala Ala Glu Arg Ala Ile  
 275 280 285  
 Ala Glu Glu Lys Arg Glu Ala Ala Asn Leu Arg His Lys Leu Leu Glu  
 290 295 300  
 Leu Thr Gln Lys Met Ala Met Leu Gln Glu Glu Pro Val Ile Val Lys  
 305 310 315 320  
 Pro Met Pro Gly Lys Pro Asn Thr Gln Asn Pro Pro Arg Arg Gly Pro  
 325 330 335  
 Leu Ser Gln Asn Gly Ser Phe Gly Pro Ser Pro Val Ser Gly Gly Glu  
 340 345 350  
 Cys Ser Pro Pro Leu Thr Val Glu Pro Pro Val Arg Pro Leu Ser Ala  
 355 360 365  
 Thr Leu Asn Arg Arg Asp Met Pro Arg Ser Glu Phe Gly Ser Val Asp  
 370 375 380

## 4248

Gly Pro Leu Pro His Pro Arg Trp Ser Ala Glu Ala Ser Gly Lys Pro  
 385 390 395 400

Ser Pro Ser Asp Pro Gly Ser Gly Thr Ala Thr Met Met Asn Ser Ser  
 405 410 415

Ser Arg Gly Ser Ser Pro Thr Arg Val Leu Asp Glu Gly Lys Val Asn  
 420 425 430

Met Ala Pro Lys Gly Pro Pro Pro Phe Pro Gly Val Pro Leu Met Ser  
 435 440 445

Thr Pro Met Gly Gly Pro Val Pro Pro Pro Ile Arg Tyr Gly Pro Pro  
 450 455 460

Pro Gln Leu Cys Gly Pro Phe Gly Pro Arg His Phe Leu His Pro Leu  
 465 470 475 480

Ala Leu Val Cys Val His His  
 485

<210> 4676

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4676

Ala Phe Asp Glu Ala Ile Ala Glu Leu Asp Thr Leu Asn Glu Glu Ser  
 1 5 10 15

Tyr Lys Asp Ser Thr Leu Xaa Met Gln Leu Leu Arg Asp Asn Leu Thr  
 20 25 30

Val Ser Thr Thr Ser Thr Gly Phe Ile Val Ser Phe Leu Phe Thr Tyr  
 35 40 45

Leu Ile Ile His Cys Tyr Leu Gln Glu Gly Ile Cys Thr Ile Lys Cys  
 50 55 60

Ser Tyr Ser Phe Lys Leu Leu Asn Leu Leu  
 65 70



4249

&lt;210&gt; 4677

&lt;211&gt; 414

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (391)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4677

Val Ile Gly Glu Phe Arg Asp Cys Ile Ser Ser Arg Glu Phe Leu Gln  
 1 5 10 15

Pro Ser Ser Lys Ala Ser Leu Glu Ser Thr Ser Asp Leu Gly Ala Ser  
 20 25 30

Gly Lys His Gly Gly Asn Val Ser Leu Asp Val Leu Pro Val Lys Gly  
 35 40 45

Pro Gln Gly Ser Pro Leu Leu Ser Arg Ala Ala Arg Pro Pro Asp Gln  
 50 55 60

Leu Ala Ser Glu Glu Pro Trp Thr Val Leu Pro Glu His Leu Ile Leu  
 65 70 75 80

Val Ala Pro Ser Pro Cys Asp Met Ala Lys Thr Gly Arg Phe Gln Ile  
 85 90 95

Val Asn Asn Ser Val Arg Leu Leu Arg Phe Glu Leu Cys Trp Pro Ala  
 100 105 110

His Cys Leu Thr Val Thr Pro Gln His Gly Cys Val Ala Pro Glu Ser  
 115 120 125

Lys Leu Gln Ile Leu Val Ser Pro Asn Ser Ser Leu Ser Thr Lys Gln  
 130 135 140

Ser Met Phe Pro Trp Ser Gly Leu Ile Tyr Ile His Cys Asp Asp Gly  
 145 150 155 160

Gln Lys Lys Ile Val Lys Val Gln Ile Arg Glu Asp Leu Thr Gln Val  
 165 170 175

Glu Leu Leu Thr Arg Leu Thr Ser Lys Pro Phe Gly Ile Leu Ser Pro  
 180 185 190

Val Ser Glu Pro Ser Val Ser His Leu Val Lys Pro Met Thr Lys Pro  
 195 200 205

Pro Ser Thr Lys Val Glu Ile Arg Asn Lys Ser Ile Thr Phe Pro Thr

## 4250

210	215	220
Thr Glu Pro Gly Glu	Thr Ser Glu Ser Cys Leu	Glu Leu Glu Asn His
225	230	235 240
Gly Thr Thr Asp Val	Lys Trp His Leu Ser Ser	Leu Ala Pro Pro Tyr
245	250	255
Val Lys Gly Val Asp	Glu Ser Gly Asp Val Phe Arg	Ala Thr Tyr Ala
260	265	270
Ala Phe Arg Cys Ser	Pro Ile Ser Gly Leu Leu	Glu Ser His Gly Ile
275	280	285
Gln Lys Val Ser Ile	Thr Phe Leu Pro Arg Gly	Arg Gly Asp Tyr Ala
290	295	300
Gln Phe Trp Asp Val	Glu Cys His Pro Leu Lys	Glu Pro His Met Lys
305	310	315 320
His Thr Leu Arg Phe	Gln Leu Ser Gly Gln Ser	Ile Glu Ala Glu Asn
325	330	335
Glu Pro Glu Asn Ala	Cys Leu Ser Thr Asp Ser	Leu Ile Lys Ile Asp
340	345	350
His Leu Val Lys Pro	Arg Arg Gln Ala Val Ser	Glu Ala Ser Ala Arg
355	360	365
Ile Pro Asp Arg Gln	Leu Asp Val Thr Ala Arg	Gly Val Tyr Ala Pro
370	375	380
Glu Asp Val Tyr Arg	Ser Xaa Arg Leu Val Trp	Gly Asn His Gly His
385	390	395 400
Leu Lys Ala Ile Cys	Glu Ile Ile Leu Leu Leu	His Thr His
405	410	

&lt;210&gt; 4678

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4678

Leu Tyr Ile Phe Phe	Gly Lys Lys Tyr Leu Lys	Thr Ser Ala Tyr Lys
1	5	10 15

Asp Ser Gln Lys Cys	Gln Arg Phe Ser Arg	Lys Phe Ile Leu Tyr Ile
20	25	30

## 4251

Ser Lys Met Ile Tyr Gln Cys Tyr Leu Pro Lys Glu Ile Ile Leu Phe  
                   35                  40                  45

Phe Pro Phe Gly Glu Ile Leu Ser Ser Asn Met Arg Ile Arg Ser Leu  
           50                  55                  60

Asp Ser Ile Ser Thr Tyr Thr Ile Lys Leu Asn Leu Glu Pro Glu Leu  
       65                  70                  75                  80

Gly Cys Ser Val Pro  
                   85

&lt;210&gt; 4679

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4679

Arg Ala Pro Cys Val Ser Leu Ser Ser Gln Val His Ser Gly Leu Leu  
   1                  5                  10                  15

Leu His Pro Leu Leu Arg Gly Cys Pro Ala Gly Arg Gly Pro Leu Leu  
           20                  25                  30

Ser Gln Leu Gln Ser Ser Pro Gly His Leu Gln Ala Phe Val Gly Leu  
           35                  40                  45

Ser Gln Thr Trp Arg Glu Pro Gly Ala Ala Gly Ser Pro Phe His Leu  
       50                  55                  60

Ser Ser Ser Phe Thr Pro Gly Gly Gly Ser Ala Leu Val Val Ser Pro  
       65                  70                  75                  80

Leu Gln Gly Ala His Leu His Val Phe Phe Trp Gly Glu Tyr Val Ala  
                   85                  90                  95

Lys Leu Thr Asn Leu Gln Thr Pro Glu Ile Ala Ala Trp Ser Arg Ala  
           100                  105                  110

&lt;210&gt; 4680

&lt;211&gt; 561

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4252

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (171)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4680

Asn	Cys	His	Phe	Lys	Leu	Ser	Ser	His	Tyr	Leu	Asp	Gly	Tyr	Thr	Ser
1				5					10					15	

Pro	Gly	Phe	Lys	Met	Leu	Glu	Ala	Tyr	Asn	Leu	Thr	Glu	Lys	Asn	Phe
			20					25					30		

Ala	Ser	Val	Gln	Gly	Val	Ser	Leu	Glu	Ser	Gly	Ser	Phe	Pro	Ser	Tyr
		35					40					45			

Ser	Ala	Tyr	Arg	Ile	Gln	Lys	Asn	Ala	Phe	Val	Asn	Gln	Pro	Thr	Ala
	50					55					60				

Asp	Leu	His	Gln	Asn	Gly	Leu	Pro	Pro	Ser	Tyr	Thr	Ile	Ile	Leu	Leu
65					70					75					80

Phe	Arg	Leu	Leu	Pro	Glu	Thr	Pro	Ser	Asp	Pro	Phe	Ala	Ile	Trp	Gln
			85						90					95	

Ile	Thr	Asp	Arg	Asp	Tyr	Lys	Pro	Gln	Val	Gly	Val	Ile	Ala	Asp	Xaa
			100					105						110	

Ser	Ser	Lys	Thr	Leu	Ser	Phe	Phe	Asn	Lys	Asp	Thr	Arg	Gly	Glu	Val
		115					120					125			

Gln	Thr	Val	Thr	Phe	Asp	Thr	Glu	Glu	Val	Lys	Thr	Leu	Phe	Tyr	Gly
	130					135					140				

Ser	Phe	His	Lys	Val	His	Ile	Val	Val	Thr	Ser	Lys	Ser	Val	Lys	Ile
145					150					155					160

Tyr	Ile	Asp	Cys	Tyr	Glu	Ile	Ile	Xaa	Lys	Xaa	Ile	Lys	Glu	Ala	Gly
			165						170						175

Asn	Ile	Thr	Thr	Asp	Gly	Tyr	Glu	Ile	Leu	Gly	Lys	Leu	Leu	Lys	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4253

180	185	190
Glu Arg Lys Ser Ala Ala Phe Gln Ile Gln Ser Phe Asp Ile Val Cys		
195	200	205
Ser Pro Val Trp Thr Ser Arg Asp Arg Cys Cys Asp Ile Pro Ser Arg		
210	215	220
Arg Asp Glu Gly Lys Cys Pro Ala Phe Pro Asn Ser Cys Thr Cys Thr		
225	230	235
Gln Asp Ser Val Gly Pro Pro Gly Pro Pro Gly Pro Ala Gly Gly Pro		
245	250	255
Gly Ala Lys Gly Pro Arg Gly Glu Arg Gly Ile Ser Gly Ala Ile Gly		
260	265	270
Pro Pro Gly Pro Arg Gly Asp Ile Gly Pro Pro Gly Pro Gln Gly Pro		
275	280	285
Pro Gly Pro Gln Gly Pro Asn Gly Leu Ser Ile Pro Gly Glu Gln Gly		
290	295	300
Arg Gln Gly Met Lys Gly Asp Ala Gly Glu Pro Gly Leu Pro Gly Arg		
305	310	315
Thr Gly Thr Pro Gly Leu Pro Gly Pro Pro Gly Pro Met Gly Pro Pro		
325	330	335
Gly Asp Arg Gly Phe Thr Gly Lys Asp Gly Ala Met Gly Pro Arg Gly		
340	345	350
Pro Pro Gly Pro Pro Gly Ser Pro Gly Ser Pro Gly Val Thr Gly Pro		
355	360	365
Ser Gly Lys Pro Gly Lys Pro Gly Asp His Gly Arg Pro Gly Pro Ser		
370	375	380
Gly Leu Lys Gly Glu Lys Gly Asp Arg Gly Asp Ile Ala Ser Gln Asn		
385	390	395
Met Met Arg Ala Val Ala Arg Gln Val Cys Glu Gln Leu Ile Ser Gly		
405	410	415
Gln Met Asn Arg Phe Asn Gln Met Leu Asn Gln Ile Pro Asn Asp Tyr		
420	425	430
Gln Ser Ser Arg Asn Gln Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro		
435	440	445
Gly Ser Ala Gly Ala Arg Gly Glu Pro Gly Pro Gly Gly Arg Pro Gly		

## 4254

450                      455                      460  
 Phe Pro Gly Thr Pro Gly Met Gln Gly Pro Pro Gly Glu Arg Gly Leu  
 465                      470                      475                      480  
 Pro Gly Glu Lys Gly Glu Arg Gly Thr Gly Ser Ser Gly Pro Arg Gly  
                     485                      490                      495  
 Leu Pro Gly Pro Pro Gly Pro Gln Gly Glu Ser Arg Thr Gly Pro Pro  
                     500                      505                      510  
 Gly Ser Thr Gly Ser Arg Gly Pro Pro Gly Pro Pro Gly Arg Pro Gly  
                     515                      520                      525  
 Asn Ser Gly Ile Arg Gly Pro Pro Gly Pro Pro Gly Tyr Cys Asp Ser  
                     530                      535                      540  
 Ser Gln Cys Ala Ser Ile Pro Tyr Asn Gly Gln Ser Tyr Pro Gly Ser  
 545                      550                      555                      560  
 Gly

&lt;210&gt; 4681

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4681

Thr Ser Pro Thr Thr His Leu Ser Leu Val Pro Asn Ser Cys Ser Pro  
 1                      5                      10                      15

Gly Asp Pro Leu Val Leu Glu Arg Pro Pro Pro Arg Trp Ser Xaa Ser  
                     20                      25                      30

Phe Val Pro Leu Val Arg  
                     35

&lt;210&gt; 4682

&lt;211&gt; 309

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4255

&lt;400&gt; 4682

Pro Ala Ile Ala Met Ala Arg Gly Lys Ala Lys Glu Glu Gly Ser Trp  
 1 5 10 15  
 Lys Lys Phe Ile Trp Asn Ser Glu Lys Lys Glu Phe Leu Gly Arg Thr  
 20 25 30  
 Gly Gly Ser Trp Phe Lys Ile Leu Leu Phe Tyr Val Ile Phe Tyr Gly  
 35 40 45  
 Cys Leu Ala Gly Ile Phe Ile Gly Thr Ile Gln Val Met Leu Leu Thr  
 50 55 60  
 Ile Ser Glu Phe Lys Pro Thr Tyr Gln Asp Arg Val Ala Pro Pro Gly  
 65 70 75 80  
 Leu Thr Gln Ile Pro Gln Ile Gln Lys Thr Glu Ile Ser Phe Arg Pro  
 85 90 95  
 Asn Asp Pro Lys Ser Tyr Glu Ala Tyr Val Leu Asn Ile Val Arg Phe  
 100 105 110  
 Leu Glu Lys Tyr Lys Asp Ser Ala Gln Arg Asp Asp Met Ile Phe Glu  
 115 120 125  
 Asp Cys Gly Asp Val Pro Ser Glu Pro Lys Glu Arg Gly Asp Phe Asn  
 130 135 140  
 His Glu Arg Gly Glu Arg Lys Val Cys Arg Phe Lys Leu Glu Trp Leu  
 145 150 155 160  
 Gly Asn Cys Ser Gly Leu Asn Asp Glu Thr Tyr Gly Tyr Lys Glu Gly  
 165 170 175  
 Lys Pro Cys Ile Ile Ile Lys Leu Asn Arg Val Leu Gly Phe Lys Pro  
 180 185 190  
 Lys Pro Pro Lys Asn Glu Ser Leu Glu Thr Tyr Pro Val Met Lys Tyr  
 195 200 205  
 Asn Pro Asn Val Leu Pro Val Gln Cys Thr Gly Lys Arg Asp Glu Asp  
 210 215 220  
 Lys Asp Lys Val Gly Asn Val Glu Tyr Phe Gly Leu Gly Asn Ser Pro  
 225 230 235 240  
 Gly Phe Pro Leu Gln Tyr Tyr Pro Tyr Tyr Gly Lys Leu Leu Gln Pro  
 245 250 255  
 Lys Tyr Leu Gln Pro Leu Leu Ala Val Gln Phe Thr Asn Leu Thr Met

## 4256

260                      265                      270  
 Asp Thr Glu Ile Arg Ile Glu Cys Lys Ala Tyr Gly Glu Asn Ile Gly  
       275                      280                      285  
 Tyr Ser Glu Lys Asp Arg Phe Gln Gly Arg Phe Asp Val Lys Ile Glu  
       290                      295                      300  
 Val Lys Ser Asp Ser  
 305

&lt;210&gt; 4683

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4683

Cys Phe Gly Phe Val Phe Pro Glu Ala Ala Ile Trp Ser Leu Ser Thr  
   1                  5                  10                  15  
 Gly Met Ser Gln Thr Gly Pro Pro Met Ser Met Ala Ala Pro Ala Arg  
                   20                  25                  30  
 Asn Ala Arg Val Ser Leu Pro Gly Leu Arg Val Asp Met Pro Ala Pro  
                   35                  40                  45  
 Cys Gln Pro Pro Val Ala Trp Pro Gly Xaa Pro Glu Pro Val Cys Pro  
   50                  55                  60  
 Pro Gln Gly Trp Arg Ser Leu Trp Ala Pro Gly Gly Phe Pro Pro Gly  
   65                  70                  75                  80  
 Asp Ser His Gly Ala Pro Cys Ser Arg Val Val Thr Val Ser Pro Glu  
                   85                  90                  95  
 Met Thr Glu Thr Arg His Ser Pro Gly Pro Gln Arg Gly Gly Ala Ser  
                   100                  105                  110  
 Arg Gln Thr Leu Gly Met Glu Leu Trp Cys Gly Leu Ser Cys Met Val  
                   115                  120                  125  
 Ala Ser Ala Phe Cys Gln His Phe Trp Met Asp Ile Gly Thr Ile Ile  
   130                  135                  140



## 4257

Ser Ile Leu Ile His Gly Asp Phe Lys Thr Thr Ile Lys Leu Ile Gln  
 145 150 155 160

Ser Pro Leu Thr Leu Thr Asp Val Gly Ile Pro Leu Leu Glu Arg Glu  
 165 170 175

Leu

<210> 4684

<211> 439

<212> PRT

<213> Homo sapiens

<400> 4684

Ala Arg Asp Glu Met Gly His Asn Phe Gly Met Phe His Asp Asp Tyr  
 1 5 10 15

Ser Cys Lys Cys Pro Ser Thr Ile Cys Val Met Asp Lys Ala Leu Ser  
 20 25 30

Phe Tyr Ile Pro Thr Asp Phe Ser Ser Cys Ser Arg Leu Ser Tyr Asp  
 35 40 45

Lys Phe Phe Glu Asp Lys Leu Ser Asn Cys Leu Phe Asn Ala Pro Leu  
 50 55 60

Pro Thr Asp Ile Ile Ser Thr Pro Ile Cys Gly Asn Gln Leu Val Glu  
 65 70 75 80

Met Gly Glu Asp Cys Asp Cys Gly Thr Ser Glu Glu Cys Thr Asn Ile  
 85 90 95

Cys Cys Asp Ala Lys Thr Cys Lys Ile Lys Ala Thr Phe Gln Cys Ala  
 100 105 110

Leu Gly Glu Cys Cys Glu Lys Cys Gln Phe Lys Lys Ala Gly Met Val  
 115 120 125

Cys Arg Pro Ala Lys Asp Glu Cys Asp Leu Pro Glu Met Cys Asn Gly  
 130 135 140

Lys Ser Gly Asn Cys Pro Asp Asp Arg Phe Gln Val Asn Gly Phe Pro  
 145 150 155 160

Cys His His Gly Lys Gly His Cys Leu Met Gly Thr Cys Pro Thr Leu  
 165 170 175

Gln Glu Gln Cys Thr Glu Leu Trp Gly Pro Gly Thr Glu Val Ala Asp

## 4258

180	185	190
Lys Ser Cys Tyr Asn Arg Asn Glu Gly Gly Ser Lys Tyr Gly Tyr Cys		
195	200	205
Arg Arg Val Asp Asp Thr Leu Ile Pro Cys Lys Ala Asn Asp Thr Met		
210	215	220
Cys Gly Lys Leu Phe Cys Gln Gly Gly Ser Asp Asn Leu Pro Trp Lys		
225	230	235
Gly Arg Ile Val Thr Phe Leu Thr Cys Lys Thr Phe Asp Pro Glu Asp		
245	250	255
Thr Ser Gln Glu Ile Gly Met Val Ala Asn Gly Thr Lys Cys Gly Asp		
260	265	270
Asn Lys Val Cys Ile Asn Ala Glu Cys Val Asp Ile Glu Lys Ala Tyr		
275	280	285
Lys Ser Thr Asn Cys Ser Ser Lys Cys Lys Gly His Ala Val Cys Asp		
290	295	300
His Glu Leu Gln Cys Gln Cys Glu Glu Gly Trp Ile Pro Pro Asp Cys		
305	310	315
Asp Asp Ser Ser Val Val Phe His Phe Ser Ile Val Val Gly Val Leu		
325	330	335
Phe Pro Met Ala Val Ile Phe Val Val Val Ala Met Val Ile Arg His		
340	345	350
Gln Ser Ser Arg Glu Lys Gln Lys Lys Asp Gln Arg Pro Leu Ser Thr		
355	360	365
Thr Gly Thr Arg Pro His Lys Gln Lys Arg Lys Pro Gln Met Val Lys		
370	375	380
Ala Val Gln Pro Gln Glu Met Ser Gln Met Lys Pro His Val Tyr Asp		
385	390	395
Leu Pro Val Glu Gly Asn Glu Pro Pro Ala Ser Phe His Lys Asp Thr		
405	410	415
Asn Ala Leu Pro Pro Thr Val Phe Lys Asp Asn Pro Met Ser Thr Pro		
420	425	430
Lys Asp Ser Asn Pro Lys Ala		
435		

4259

&lt;210&gt; 4685

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4685

Ala	Gly	Xaa	Pro	Ala	Gly	Xaa	Gly	Pro	Glu	Phe	Pro	Gly	Arg	Pro	Thr
1				5					10					15	

Arg	Pro	Asp	Asp	Cys	Asn	Ser	Pro	Cys	Tyr	Arg	Arg	Glu	Ile	Ile	Gly
			20					25					30		

Ser	Cys	Leu	Leu	Thr	Leu	Cys	Val	Ala	Leu	Trp	Ser	Trp	Ile	Phe	Leu
		35					40					45			

Arg	Phe	Lys	Lys	Asn	His	Ser	Phe	Gly	Thr	Phe	Asn
		50				55					60

&lt;210&gt; 4686

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4686

Gly	Val	Val	Tyr	Ser	Tyr	Phe	Phe	Phe	Leu	Leu	Val	Ile	Leu	Thr	Asn
1				5					10					15	

Met	Ile	Pro	Leu	Leu	Glu	Ser	Leu	Ser	Leu	Pro	His	Pro	Gln	Lys	Cys
			20					25					30		

Leu	Leu	Phe	Met	Thr	Val	Thr	Asn	Tyr	Ser	Gly	Gln	Ile	Ala	Ser	Phe
		35					40					45			

4260

&lt;210&gt; 4687

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4687

Gly Gly Ser Gly Glu Phe Trp Arg Lys Arg Arg Val Leu Leu Glu Leu  
 1 5 10 15

Tyr Arg Pro Cys Phe Ser Gly Pro Arg Lys Val Ala Ser Xaa Ser Ala  
 20 25 30

Ala Ala Ser Thr Leu Ser Glu Pro Pro Arg Arg Thr Gln Glu Ser Arg  
 35 40 45

Thr Arg Thr Arg Ala Leu Gly Leu Pro Thr Leu Pro Met Glu Lys Leu  
 50 55 60

Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg Pro Val Leu Gly Arg Glu  
 65 70 75 80

Ser Val Gln Val Pro Asp Asp Gln Asp Phe Arg Ser Phe Arg Ser Glu  
 85 90 95

Cys Glu Ala Glu Val Gly Trp Asn Leu Thr Tyr Ser Arg Ala Gly Val  
 100 105 110

Ser Val Trp Val Gln Ala Val Glu Met Asp Arg Thr Leu His Lys Ile  
 115 120 125

Lys Cys Arg Met Glu Cys Cys Asp Val Pro Ala Glu Thr Leu Tyr Asp  
 130 135 140

Val Leu His Asp Ile Glu Tyr Arg Lys Lys Trp Asp Ser Asn Val Ile  
 145 150 155 160

Glu Thr Phe Asp Ile Ala Arg Leu Thr Val Asn Ala Asp Val Gly Tyr  
 165 170 175

Tyr Ser Trp Arg Cys Pro Lys Pro Leu Lys Asn Arg Asp Val Ile Thr  
 180 185 190

Leu Arg Ser Trp Leu Pro Met Gly Ala Asp Tyr Ile Ile Met Asn Tyr  
 195 200 205

Ser Val Lys His Pro Lys Tyr Pro Pro Arg Lys Asp Leu Val Arg Ala

## 4261

210		215		220
Val Ser Ile Gln Thr Gly Tyr Leu Ile Gln Ser Thr Gly Pro Lys Ser				
225		230		235 240
Cys Val Ile Thr Tyr Leu Ala Gln Val Asp Pro Lys Gly Ser Leu Pro				
	245		250	255
Lys Trp Val Val Asn Lys Ser Ser Gln Phe Leu Ala Pro Lys Ala Met				
	260		265	270
Lys Lys Met Tyr Lys Ala Cys Leu Lys Tyr Pro Glu Trp Lys Gln Lys				
	275		280	285
His Leu Pro His Phe Lys Pro Trp Leu His Pro Glu Gln Ser Pro Leu				
	290		295	300
Pro Ser Leu Ala Leu Ser Glu Leu Ser Val Gln His Ala Asp Ser Leu				
	305		310	315 320
Glu Asn Ile Asp Glu Ser Ala Val Ala Glu Ser Arg Glu Glu Arg Met				
	325		330	335
Gly Gly Ala Gly Gly Glu Gly Ser Asp Asp Asp Thr Ser Leu Thr				
	340		345	350

<210> 4688  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<400> 4688  
 Met Gly Val Tyr Asn Phe Tyr Val Ser Cys Phe Gln Gln Leu Cys Leu  
 1 5 10 15  
 Gly Trp Ser Leu Ala Gly Gly Asp Arg Ile Ser Glu Trp His Ile Ile  
 20 25 30  
 Ser Ile Leu His Met Ser Lys Leu Arg His Arg Glu Leu Asp Asn Leu  
 35 40 45  
 Pro Arg Leu His Arg Leu  
 50

<210> 4689  
 <211> 65  
 <212> PRT

4262

&lt;213&gt; Homo sapiens

&lt;400&gt; 4689

Glu Gln Tyr Leu Asp Leu Met Leu Ser Glu Cys Pro Ala Leu Leu Pro  
 1 5 10 15  
 Ser Ala Trp Met Ser Glu Cys Phe Tyr Ala Arg Gly Asp Ser Ser Gln  
 20 25 30  
 Leu Arg Val Cys Phe Phe Gln Arg Ser Ser Gln Val Ser Phe Ala Lys  
 35 40 45  
 Leu Gly His Leu Ala Gln Val Phe Leu Glu Ser Gly Val His Val Thr  
 50 55 60  
 Asp  
 65

&lt;210&gt; 4690

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4690

Leu Leu Leu Ile Ser Tyr Tyr Cys Lys Ala Leu Ser Pro Ala Ser Gly  
 1 5 10 15  
 Ser Leu Cys Val Ile Glu Leu Lys Ile Ile Ala Val Tyr Asn Thr  
 20 25 30

&lt;210&gt; 4691

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4691

Lys Val Gln Thr Leu Phe Gly Thr Thr Arg Ser Phe His Leu Ala Lys  
 1 5 10 15  
 Thr Ala Asp Pro Gly Ala Arg Ala Gln Gly Ser Pro Gly Cys Gly Glu  
 20 25 30  
 Glu Trp Leu Trp His Leu Pro Ile Leu Trp Val Leu Gln Ala Leu Leu  
 35 40 45  
 Glu Val Phe Gly Leu Phe Gly Leu Trp Ser Phe Ser Pro Gly Thr Glu  
 50 55 60

## 4263

Val Glu Met Gly Arg Arg Pro Gly Gln Cys Ser Trp Lys Leu Thr Leu  
65 70 75 80

His Phe Ser Ala Pro Val Phe Gln Phe Lys Ser Ala Phe Ser Ser Ala  
85 90 95

Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala Thr Gly  
100 105 110

Glu Val Trp Gly Gln Leu Val Ile Arg Lys Gly Met Glu Asp Val  
115 120 125

<210> 4692

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4692

Ser Tyr Val His Lys Ser Leu Ser Trp Lys Pro Leu Leu Ser Phe Ile  
1 5 10 15

Ser Pro Ser Ile Pro Ile Thr Phe Leu Arg Asn Val Thr Trp Val Met  
20 25 30

Val Asn Leu Cys Arg His Lys Asp Pro Pro Pro Pro Met Glu Thr Ile  
35 40 45

Gln Glu Ile Leu Pro Ala Leu Cys Val Leu Ile His His Thr Asp Val  
50 55 60

Asn Ile Leu Val Asp Thr Val Trp Ala Leu Ser Tyr Leu Thr Asp Ala  
65 70 75 80

Gly Asn Glu Gln Ile Gln Met Val Ile Asp Ser Gly Ile Val Pro His  
85 90 95

Leu Val Pro Leu Leu Ser His Gln Glu Val Lys Val Gln Thr Ala Ala  
100 105 110

Leu Arg Ala Val Gly Asn Ile Val Thr Gly Thr Asp Glu Gln Thr Gln  
115 120 125

Val Val Leu Asn Cys Asp Ala Leu Ser His Phe Pro Ala Leu Leu Thr  
130 135 140

His Pro Lys Glu Lys Ile Asn Lys Glu Ala Val Trp Phe Leu Ser Asn  
145 150 155 160

## 4264

Ile Thr Ala Gly Asn Gln Gln Gln Val Gln Ala Val Ile Asp Ala Asn  
                                   165                                  170                                  175

Leu Val Pro Met Ile Ile His Leu Leu Asp Lys Gly Asp Phe Gly Thr  
                                   180                                  185                                  190

Gln Lys Glu Ala Ala Trp Ala Ile Ser Asn Leu Thr Ile Ser Gly Arg  
                                   195                                  200                                  205

Lys Asp Gln Val Ala Tyr Leu Ile Gln Gln Asn Val Ile Pro Pro Phe  
                                   210                                  215                                  220

Cys Asn Leu Leu Thr Val Lys Asp Ala Gln Val Val Gln Val Val Leu  
                                   225                                  230                                  235                                  240

Asp Gly Leu Ser Asn Ile Leu Lys Met Ala Glu Asp Glu Ala Glu Thr  
                                   245                                  250                                  255

Ile Gly Asn Leu Ile Glu Glu Cys Gly Gly Leu Glu Lys Ile Glu Gln  
                                   260                                  265                                  270

Leu Gln Asn His Glu Asn Glu Asp Ile Tyr Lys Leu Ala Tyr Glu Ile  
                                   275                                  280                                  285

Ile Asp Gln Phe Phe Ser Ser Asp Asp Ile Asp Glu Asp Pro Ser Leu  
                                   290                                  295                                  300

Val Pro Glu Ala Ile Gln Gly Gly Thr Phe Gly Phe Asn Ser Ser Ala  
                                   305                                  310                                  315                                  320

Asn Val Pro Thr Glu Gly Phe Gln Phe  
                                   325

<210> 4693

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4693

Met Leu Ser Val Ser Leu Val Phe Ile Ser Ala Ser Ser Ser Leu Leu  
       1                                  5                                  10                                  15

Gly Tyr Ile Val Val Leu Phe Pro Val Xaa His Leu Ser Leu Val Phe  
                                   20                                  25                                  30



## 4265

His Tyr Gly Lys Phe Ile Lys Lys Leu Ala Pro Leu Leu Ser Ser Ser  
           35                                  40                                  45

Asn Ala His Lys Glu Met Glu Asp Ile  
           50                                  55

<210> 4694

<211> 69

<212> PRT

<213> Homo sapiens

<400> 4694

Gly Lys Gly Ser Lys Pro Leu Lys Met Cys Phe Val Ile Arg Ser Ala  
       1                                  5                                  10                                  15

Leu Gln Thr Lys Tyr Ala Arg Cys Pro Phe Glu Ala Ser Glu Leu Ser  
                   20                                  25                                  30

Leu Gln Gly Phe Lys Ala Thr Phe Gln Gln Glu Lys Ala Leu Arg Ala  
                   35                                  40                                  45

Arg Arg Phe Ile Lys Glu Gly Lys Ala Leu Val Ser Leu Leu Arg Lys  
           50                                  55                                  60

Val Gly Phe Leu Ala  
       65

<210> 4695

<211> 461

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (312)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (406)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4695

Gly Ser Pro Arg Leu Leu Gly Ala Ala Ala Leu Ala Leu Gly Gly Ala  
       1                                  5                                  10                                  15

## 4266

Leu Gly Leu Tyr His Thr Ala Arg Trp His Leu Arg Ala Gln Asp Leu  
                   20                                  25                                  30

His Ala Glu Arg Ser Ala Ala Gln Leu Ser Leu Ser Ser Arg Leu Gln  
                   35                                  40                                  45

Leu Thr Leu Tyr Gln Tyr Lys Thr Cys Pro Phe Cys Ser Lys Val Arg  
                   50                                  55                                  60

Ala Phe Leu Asp Phe His Ala Leu Pro Tyr Gln Val Val Glu Val Asn  
                   65                                  70                                  75                                  80

Pro Val Arg Arg Ala Glu Ile Lys Phe Ser Ser Tyr Arg Lys Val Pro  
                                   85                                  90                                  95

Ile Leu Val Ala Gln Glu Gly Glu Ser Ser Gln Gln Leu Asn Asp Ser  
                   100                                  105                                  110

Ser Val Ile Ile Ser Ala Leu Lys Thr Tyr Leu Val Ser Gly Gln Pro  
                   115                                  120                                  125

Leu Glu Glu Ile Ile Thr Tyr Tyr Pro Ala Met Lys Ala Val Asn Glu  
                   130                                  135                                  140

Gln Gly Lys Glu Val Thr Glu Phe Gly Asn Lys Tyr Trp Leu Met Leu  
                   145                                  150                                  155                                  160

Asn Glu Lys Glu Ala Gln Gln Val Tyr Gly Gly Lys Glu Ala Arg Thr  
                                   165                                  170                                  175

Glu Glu Met Lys Trp Arg Gln Trp Ala Asp Asp Trp Leu Val His Leu  
                   180                                  185                                  190

Ile Ser Pro Asn Val Tyr Arg Thr Pro Thr Glu Ala Leu Ala Ser Phe  
                   195                                  200                                  205

Asp Tyr Ile Val Arg Glu Gly Lys Phe Gly Ala Val Glu Gly Ala Val  
                   210                                  215                                  220

Ala Lys Tyr Met Gly Ala Ala Ala Met Tyr Leu Ile Ser Lys Arg Leu  
                   225                                  230                                  235                                  240

Lys Ser Arg His Arg Leu Gln Asp Asn Val Arg Glu Asp Leu Tyr Glu  
                                   245                                  250                                  255

Ala Ala Asp Lys Trp Val Ala Ala Val Gly Lys Asp Arg Pro Phe Met  
                   260                                  265                                  270

Gly Gly Gln Lys Pro Asn Leu Ala Asp Leu Ala Val Tyr Gly Val Leu  
                   275                                  280                                  285

## 4267

Arg Val Met Glu Gly Leu Asp Ala Phe Asp Asp Leu Met Gln His Thr  
 290 295 300  
 His Ile Gln Pro Trp Tyr Leu Xaa Val Glu Arg Ala Ile Thr Glu Ala  
 305 310 315 320  
 Pro Gln Arg Thr Glu Cys Pro Pro Arg Arg Ala Glu Gly Arg Gln Ala  
 325 330 335  
 Glu Asp Ala Ser Cys Pro Arg Pro Gly Pro Leu Gly Pro Ala Pro Gly  
 340 345 350  
 Asp Thr Gly Trp Gly Gln Asp His Ser Ala Pro Cys Pro Arg Thr Pro  
 355 360 365  
 Thr Ser Pro Leu Ala Ser Asn Thr Gly His Leu Leu Gly Leu Arg Asp  
 370 375 380  
 Val Arg Asp Glu Phe Gln Pro Cys His Cys Pro Gly Ala Thr Pro Pro  
 385 390 395 400  
 Cys Pro Cys Leu Pro Xaa Cys Arg Pro Ser Ser Trp Thr Leu Ser Gly  
 405 410 415  
 Cys Pro Met Ala Thr Ser Cys Gly Trp Gly Pro Ser Thr Gly Gln Gln  
 420 425 430  
 Asp Gly Leu Phe Ser Val Glu Ser His Pro Trp Val Pro Leu Val Pro  
 435 440 445  
 Thr Leu Pro Lys Pro Pro Gly Thr Gly Thr Cys Leu Gln  
 450 455 460

&lt;210&gt; 4696

&lt;211&gt; 274

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4696

Thr Ser Arg Gln Asn Lys Thr Glu Asn Leu Leu Glu Ser Arg Met Met  
 1 5 10 15  
 Asp Pro Cys Ser Val Gly Val Gln Leu Arg Thr Thr Asn Glu Cys His  
 20 25 30  
 Lys Thr Tyr Tyr Thr Arg His Thr Gly Phe Lys Thr Leu Gln Glu Leu  
 35 40 45  
 Ser Ser Asn Asp Met Leu Leu Leu Gln Leu Arg Thr Gly Met Thr Leu

4268

50		55		60
Ser Gly Asn Asn Thr Ile Cys Phe His His Val Lys Ile Tyr Ile Asp				
65		70		75 80
Arg Phe Glu Asp Leu Gln Lys Ser Cys Cys Asp Pro Phe Asn Ile His				
	85		90	95
Lys Lys Leu Ala Lys Lys Asn Leu His Val Ile Asp Leu Asp Asp Ala				
	100		105	110
Thr Phe Leu Ser Ala Lys Phe Gly Arg Gln Leu Val Pro Gly Trp Lys				
	115		120	125
Leu Cys Pro Lys Cys Thr Gln Ile Ile Asn Gly Ser Val Asp Val Asp				
	130		135	140
Thr Glu Asp Arg Gln Lys Arg Lys Pro Glu Ser Asp Gly Arg Thr Ala				
145		150		155 160
Lys Ala Leu Arg Ser Leu Gln Phe Thr Asn Pro Gly Arg Gln Thr Glu				
	165		170	175
Phe Ala Pro Glu Thr Gly Lys Arg Glu Lys Arg Arg Leu Thr Lys Asn				
	180		185	190
Ala Thr Ala Gly Ser Asp Arg Gln Val Ile Pro Ala Lys Ser Lys Val				
	195		200	205
Tyr Asp Ser Gln Gly Leu Leu Ile Phe Ser Gly Met Asp Leu Cys Asp				
	210		215	220
Cys Leu Asp Glu Asp Cys Leu Gly Cys Phe Tyr Ala Cys Pro Ala Cys				
225		230		235 240
Gly Ser Thr Lys Cys Gly Ala Glu Cys Arg Cys Asp Arg Lys Trp Leu				
	245		250	255
Tyr Glu Gln Ile Glu Ile Glu Gly Gly Glu Ile Ile His Asn Lys His				
	260		265	270
Ala Gly				

&lt;210&gt; 4697

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4269

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (113)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4697

Leu	Gly	Asp	Glu	Thr	Gly	Ser	Ser	Met	Thr	His	Leu	Ile	Glu	Tyr	Asp
1				5					10					15	

Arg	His	Xaa	Lys	Ser	Arg	Leu	Xaa	Pro	Leu	Gln	His	Leu	Tyr	Leu	Leu
			20					25					30		

Pro	Ala	Asp	His	Ser	Arg	Asn	Ala	Ala	Glu	Arg	Phe	Pro	Gly	Ala	Trp
		35					40						45		

Phe	Gln	Xaa	Pro	Thr	Val	Asp	Ser	Glu	Ala	Ser	Ala	Phe	Ala	Gly	Gly
	50					55					60				

Leu	Pro	Val	Ile	Phe	Trp	Ser	Trp	Ala	Gly	Leu	Val	Gly	Phe	Pro	Phe
65					70					75					80

Val	Trp	Pro	Val	Ser	Xaa	Cys	Leu	Asn	Pro	Leu	Ser	Phe	Ile	Lys	Ser
				85					90					95	

Lys	Thr	Lys	Glu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Phe	Gly	Gly	Gly
		100						105					110		

Xaa	Arg	Tyr	Pro	Ile	Gly	Pro	Leu	Gly	Gly
		115					120		

4270

&lt;210&gt; 4698

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4698

Asn	Ser	Gly	Ser	His	Asn	Ile	Val	Ala	Ser	Arg	Ser	Xaa	Xaa	Ile	Phe
1				5					10					15	

Asp	Gln	Asp	Asp	Xaa	Asn	Gly	Leu	Thr	Trp	Val	Phe	Ile	Val	Tyr	Gln
		20						25					30		

Ile	Leu	His	Thr	Lys	Glu	Trp	Lys	Tyr	Ser	Phe	Thr	Lys	Phe	Leu	Arg
		35					40					45			

Lys	Ile	Phe	Leu	Pro	Ile	Tyr	His	Asn	Tyr	Arg	Met	Asp	Ile	Cys	Phe
	50					55					60				

&lt;210&gt; 4699

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4271

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (83)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4699

Gly	Ala	Arg	Leu	Gly	Ala	Leu	Gln	Ala	Ala	Pro	Gln	Pro	Gly	Thr	Pro
1				5					10					15	

Thr	Pro	Leu	Arg	Ser	Pro	Gln	Ala	Ser	Gly	Pro	His	Pro	Ser	Glu	Ala
			20					25					30		

Gln	Gly	Ser	Pro	Val	His	Ala	Gly	Phe	Ser	Pro	Gly	Pro	Met	Ser	Phe
		35					40					45			

Leu	Ala	Gly	Leu	Gly	Leu	Ala	Val	Gly	Leu	Ala	Leu	Leu	Leu	Tyr	Cys
	50					55					60				

Tyr	Pro	Pro	Asp	Pro	Lys	Gly	Leu	Pro	Gly	Thr	Arg	Arg	Val	Xaa	Gly
65					70					75					80

Phe	Xaa	Xaa	Val	Ile	Ile	Asp	Arg	His	Val	Ser	Arg	Tyr	Leu	Leu	Ala
				85					90					95	

Phe	Leu	Ala	Asp	Asp	Leu	Gly	Gly	Leu
			100				105	

&lt;210&gt; 4700

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (149)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4700

Gly	Ala	Ile	Gly	Thr	Ser	Ser	Pro	Ala	Leu	Leu	Glu	Cys	Gln	Glu	Gly
1				5					10					15	

## 4272

Val Gly Pro Ala Arg Pro Ser Leu Leu Val Pro Pro Pro Pro Arg Xaa  
                   20                  25                  30  
 Arg Arg Leu Asp Leu Ala Arg Thr Leu Pro Ala Glu Arg Thr Asp Ser  
           35                  40                  45  
 Gln Ser Leu Tyr Ile Val Tyr Ile Ala Leu Pro Gly Arg Thr Pro Arg  
       50                  55                  60  
 Pro Ala Leu Ala Phe Ala Phe Leu Met Pro Ala Cys Cys Asn Arg Pro  
   65                  70                  75                  80  
 Ser Pro Arg Pro Ser Pro Ala His Leu Thr Ala Ser Ser Val Leu Arg  
                   85                  90                  95  
 Arg Gln Arg His Val Leu Ala Ala Ser Ala Ala Ser Pro Cys Gln Trp  
           100                  105                  110  
 Ser Gly Leu Arg Val Ala His Ser Leu Arg Gln Val Val Ser Leu Cys  
       115                  120                  125  
 Pro Arg Cys Thr Gly Ser Cys Pro Phe Ser Gly Ala Cys Ala Ser Ser  
       130                  135                  140  
 Leu Pro Ser Pro Xaa Ser Cys Pro His Ser His Ser Gly Ser Trp Gly  
   145                  150                  155                  160  
 Thr Trp Ser Gln Gly Arg Pro Cys Ser Ser Thr Glu Val Ala Gly Leu  
           165                  170                  175  
 Ala Leu Trp Pro Thr Asp Phe Leu Ser Cys Leu Leu Asp Ala Ser Glu  
       180                  185                  190  
 Leu Gln Thr Gln Gly Ser His Gly Phe Ser Phe Thr Pro Thr Gly Phe  
       195                  200                  205  
 Ser Ser Asn Arg Lys Val Gly Val Gly Ser Cys Arg Asp Gly Ala Gly  
       210                  215                  220  
 Arg Gly Ala Met Gly Gly Leu Phe  
   225                  230

&lt;210&gt; 4701

&lt;211&gt; 665

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE



4273

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4701

Asp	Val	His	His	Arg	Ala	Glu	Cys	Arg	Ala	Asp	Arg	His	Arg	Arg	Glu
1				5					10					15	

Xaa	Leu	Tyr	Asp	Met	Phe	Val	Asn	Phe	Pro	Asp	Gln	Pro	Val	Val	Trp
			20					25					30		

Arg	Glu	Ile	Ser	Ile	Ile	Thr	Ser	Ala	Leu	Arg	Asn	Asp	Ser	Gln	Asp
		35					40					45			

Lys	Gln	Thr	Gln	Phe	Leu	Arg	Ser	Leu	Phe	Glu	Thr	Leu	Pro	Gly	Arg
	50					55					60				

Val	Gln	Cys	Glu	Met	Leu	Leu	Lys	Val	Thr	Glu	Gln	Cys	Phe	Asn	Thr
65					70					75					80

Leu	Glu	Arg	Ser	Glu	Met	Leu	Leu	Leu	Leu	Leu	Arg	Arg	Phe	Pro	Glu
				85					90					95	

Thr	Val	Val	Gln	His	Gly	Val	Gly	Leu	Gly	Xaa	Ala	Leu	Leu	Xaa	Ala
			100					105					110		

Glu	Thr	Ile	Xaa	Glu	Gln	Glu	Ser	Pro	Val	Asn	Cys	Phe	Arg	Lys	Leu
		115					120					125			

Phe	Val	Cys	Asp	Val	Leu	Pro	Leu	Ile	Ile	Asn	Asn	His	Asp	Val	Arg
	130					135					140				

Leu	Pro	Ala	Asn	Leu	Leu	Tyr	Lys	Tyr	Leu	Asn	Lys	Ala	Ala	Glu	Phe
145					150					155					160

Tyr	Ile	Asn	Tyr	Val	Thr	Arg	Ser	Thr	Gln	Ile	Glu	Asn	Gln	His	Gln
				165					170					175	

4274

Gly	Ala	Gln	Asp	Thr	Ser	Asp	Leu	Met	Ser	Pro	Ser	Lys	Arg	Ser	Ser	180	185	190
Gln	Lys	Tyr	Ile	Ile	Glu	Gly	Leu	Thr	Glu	Lys	Ser	Ser	Gln	Ile	Val	195	200	205
Asp	Pro	Trp	Glu	Arg	Leu	Phe	Lys	Ile	Leu	Asn	Val	Val	Gly	Met	Arg	210	215	220
Cys	Glu	Trp	Gln	Met	Asp	Lys	Gly	Arg	Arg	Ser	Tyr	Gly	Asp	Ile	Leu	225	230	235
His	Arg	Met	Lys	Asp	Leu	Cys	Arg	Tyr	Met	Asn	Asn	Phe	Asp	Ser	Glu	245	250	255
Ala	His	Ala	Lys	Tyr	Lys	Asn	Gln	Val	Val	Tyr	Ser	Thr	Met	Leu	Val	260	265	270
Phe	Phe	Lys	Asn	Ala	Phe	Gln	Tyr	Val	Asn	Ser	Ile	Gln	Pro	Ser	Leu	275	280	285
Phe	Gln	Gly	Pro	Asn	Ala	Pro	Ser	Gln	Val	Pro	Leu	Val	Leu	Leu	Glu	290	295	300
Asp	Val	Ser	Asn	Val	Tyr	Gly	Asp	Val	Glu	Ile	Asp	Arg	Asn	Lys	His	305	310	315
Ile	His	Lys	Lys	Arg	Lys	Leu	Ala	Glu	Gly	Arg	Glu	Lys	Thr	Met	Ser	325	330	335
Ser	Asp	Asp	Glu	Asp	Cys	Ser	Ala	Lys	Gly	Arg	Asn	Arg	His	Ile	Val	340	345	350
Val	Asn	Lys	Ala	Glu	Leu	Ala	Asn	Ser	Thr	Glu	Val	Leu	Glu	Ser	Phe	355	360	365
Lys	Leu	Ala	Arg	Glu	Ser	Trp	Glu	Leu	Leu	Tyr	Ser	Leu	Glu	Phe	Leu	370	375	380
Asp	Lys	Glu	Phe	Thr	Arg	Ile	Cys	Leu	Ala	Trp	Lys	Thr	Asp	Thr	Trp	385	390	395
Leu	Trp	Leu	Arg	Ile	Phe	Leu	Thr	Asp	Met	Ile	Ile	Tyr	Gln	Gly	Gln	405	410	415
Tyr	Lys	Lys	Ala	Ile	Ala	Ser	Leu	His	His	Leu	Ala	Ala	Leu	Gln	Gly	420	425	430
Ser	Ile	Ser	Gln	Pro	Gln	Ile	Thr	Gly	Gln	Gly	Thr	Leu	Glu	His	Gln	435	440	445

## 4275

Arg Ala Leu Ile Gln Leu Ala Thr Cys His Phe Ala Leu Gly Glu Tyr  
 450 455 460  
 Arg Met Thr Cys Glu Lys Val Leu Asp Leu Met Cys Tyr Met Val Leu  
 465 470 475 480  
 Pro Ile Gln Asp Gly Gly Lys Ser Gln Glu Glu Pro Ser Lys Val Lys  
 485 490 495  
 Pro Lys Phe Arg Lys Gly Ser Asp Leu Lys Leu Leu Pro Cys Thr Ser  
 500 505 510  
 Lys Ala Ile Met Pro Tyr Cys Leu His Leu Met Leu Ala Cys Phe Lys  
 515 520 525  
 Leu Arg Ala Phe Thr Asp Asn Arg Asp Asp Met Ala Leu Gly His Val  
 530 535 540  
 Ile Val Leu Leu Gln Gln Glu Trp Pro Arg Gly Glu Asn Leu Phe Leu  
 545 550 555 560  
 Lys Ala Val Asn Lys Ile Cys Gln Gln Gly Asn Phe Gln Tyr Glu Asn  
 565 570 575  
 Phe Phe Asn Tyr Val Thr Asn Ile Asp Met Leu Glu Glu Phe Ala Tyr  
 580 585 590  
 Leu Arg Thr Gln Glu Gly Gly Lys Ile His Leu Glu Leu Leu Pro Asn  
 595 600 605  
 Gln Gly Met Leu Ile Lys His His Thr Val Thr Arg Gly Ile Thr Lys  
 610 615 620  
 Gly Val Lys Glu Asp Phe Arg Leu Ala Met Glu Arg Gln Val Ser Arg  
 625 630 635 640  
 Cys Gly Glu Asn Leu Met Val Val Leu His Arg Phe Cys Ile Asn Glu  
 645 650 655  
 Lys Ile Leu Leu Leu Gln Thr Leu Thr  
 660 665

&lt;210&gt; 4702

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4702

## 4276

Val Lys Ser Glu Asp Leu Asn Glu Val Thr Pro Lys Leu Ser Gln Ser  
 1 5 10 15  
 His Val Phe Leu Thr Leu Gly Ile Ser Asn Ser Ile Tyr Thr Ala Phe  
 20 25 30  
 Phe Lys Cys Asn Phe Gln Arg Cys Leu Leu Pro His Pro Leu Leu Leu  
 35 40 45  
 Ser Ile Ile Ile Asp Phe Trp Arg Leu Thr Lys Gln Ala Ile Pro Lys  
 50 55 60  
 Phe Ser Pro Arg Lys Val Ser Trp Ile Lys Trp Phe Leu Arg Thr Leu  
 65 70 75 80  
 Arg Val Tyr Ile Leu  
 85

&lt;210&gt; 4703

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4703

Cys Asn Leu Tyr Ser Trp Arg Asn Lys Ile Phe Ile Trp Asp Tyr Phe  
 1 5 10 15  
 Leu Gln Pro Phe Asn Lys His Leu Leu Tyr Ala Thr Lys Arg Gln Ala  
 20 25 30  
 Arg Arg Trp Ala Leu Gln Thr Gln Trp Leu Val Ala Val Trp Thr Trp  
 35 40 45  
 Ser Leu Leu Ala Trp Asn Pro Ser Leu Pro Asn Met Gln Ser Pro His  
 50 55 60  
 Leu Lys Ala Ser Leu Cys Pro Phe Ser Asp Ala Leu Phe Arg Asn Ala  
 65 70 75 80  
 Xaa Pro Leu Tyr Ser Glu Ile Arg Arg His Lys Thr Ser Ser Lys Ser  
 85 90 95

Leu Leu Trp

4277

&lt;210&gt; 4704

&lt;211&gt; 215

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4704

Leu Gly Ala Val Gly Ala Xaa Leu Arg Gly Leu Arg Gly Cys Arg Gly  
 1 5 10 15

Ala Arg Gly Ala Gly Gly Lys Ala His Leu Gly Trp Pro Trp Arg Ala  
 20 25 30

Gly Gly Asp Met Glu Asp Gly Val Leu Lys Glu Gly Phe Leu Val Lys  
 35 40 45

Arg Gly His Ile Val His Asn Trp Lys Ala Arg Trp Phe Ile Leu Arg  
 50 55 60

Gln Asn Thr Leu Val Tyr Tyr Lys Leu Glu Gly Gly Arg Arg Val Thr  
 65 70 75 80

Pro Pro Lys Gly Arg Ile Leu Leu Asp Gly Cys Thr Ile Thr Cys Pro  
 85 90 95

Cys Leu Glu Tyr Glu Asn Arg Pro Leu Leu Ile Lys Leu Lys Thr Gln  
 100 105 110

Thr Ser Thr Glu Tyr Phe Leu Glu Ala Cys Ser Arg Glu Glu Arg Asp  
 115 120 125

Ala Trp Ala Phe Glu Ile Thr Gly Ala Ile His Ala Gly Gln Pro Gly  
 130 135 140

Lys Val Gln Gln Leu His Ser Leu Arg Asn Ser Phe Lys Leu Pro Pro  
 145 150 155 160

His Ile Ser Leu His Arg Ile Val Asp Lys Met His Asp Ser Asn Thr  
 165 170 175

Gly Ile Arg Ser Ser Pro Asn Met Glu Gln Gly Ser Thr Tyr Lys Lys  
 180 185 190

Thr Phe Leu Gly Ser Ser Trp Trp Thr Gly Ser Ser Pro Thr Ala Ser

4278

195

200

205

Arg Ala Ala Val Trp Arg Arg  
 210 215

&lt;210&gt; 4705

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4705

Asp Leu Pro Pro Leu Leu Val Phe Xaa Ala Val Lys Thr Leu Ser Thr  
 1 5 10 15

Val Thr Tyr Phe Leu Ser Gln Ala Ala Ser His Leu Val Pro Cys Ala  
 20 25 30

Asp Ser Ser Thr Val Ala Arg Ile Gln Tyr Glu Ser Arg Gly Asp Arg  
 35 40 45

Arg Met Val Gly Ala Ala Gly Phe Ser Thr Tyr Pro Ser His Gln Gly  
 50 55 60

Pro Asp Ala Leu Xaa Pro Ala Pro Ser Ala His Pro Cys Ala Gln Leu  
 65 70 75 80

Glu Gly Cys Met Ala Arg Ser Pro Leu Phe Arg Trp Val Glu Thr Leu  
 85 90 95

Met Ile Pro Ala Pro Pro Xaa Arg Ala Pro Ala Thr Glu Gln Ala Leu  
 100 105 110

4279

&lt;210&gt; 4706

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4706

Gln Ser Arg His Gln Leu Ala Trp Leu Leu Gly Met Ala Ile Gly Gly  
 1 5 10 15

Ser Xaa Cys Gly Pro Leu Leu Ala Asn Cys Met Gln Pro Pro Thr Leu  
 20 25 30

Arg Met Phe Ala Trp Ala Glu Asn Ala Glu Thr Leu Trp Pro Asp Leu  
 35 40 45

Thr Val Ser Thr Trp Gln Trp Ala Leu Trp Thr Gln His Phe Ser  
 50 55 60

&lt;210&gt; 4707

&lt;211&gt; 578

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4707

Pro Thr Ala Ser Ala Gly Ala Arg Trp Ser His Lys Thr Ala Ser Val  
 1 5 10 15

Leu Gln Ser Val Ser Leu Glu Val Thr Arg Ala Thr Ala Gly Met Val  
 20 25 30

Leu Ala Glu Leu Tyr Val Ser Asp Arg Glu Gly Ser Asp Ala Thr Gly  
 35 40 45

Asp Gly Thr Lys Glu Lys Pro Phe Lys Thr Gly Leu Lys Ala Leu Met  
 50 55 60

Thr Val Gly Lys Glu Pro Phe Pro Thr Ile Tyr Val Asp Ser Gln Lys  
 65 70 75 80

Glu Asn Glu Arg Trp Asn Val Ile Ser Lys Ser Gln Leu Lys Asn Ile  
 85 90 95

## 4280

Lys Lys Met Trp His Arg Glu Gln Met Lys Ser Glu Ser Arg Glu Lys  
 100 105 110

Lys Glu Ala Glu Asp Ser Leu Arg Arg Glu Lys Asn Leu Glu Glu Ala  
 115 120 125

Lys Lys Ile Thr Ile Lys Asn Asp Pro Ser Leu Pro Glu Pro Lys Cys  
 130 135 140

Val Lys Ile Gly Ala Leu Glu Gly Tyr Arg Gly Gln Arg Val Lys Val  
 145 150 155 160

Phe Gly Trp Val His Arg Leu Arg Arg Gln Gly Lys Asn Leu Met Phe  
 165 170 175

Leu Val Leu Arg Asp Gly Thr Gly Tyr Leu Gln Cys Val Leu Ala Asp  
 180 185 190

Glu Leu Cys Gln Cys Tyr Asn Gly Val Leu Leu Ser Thr Glu Ser Ser  
 195 200 205

Val Ala Val Tyr Gly Met Leu Asn Leu Thr Pro Lys Gly Lys Gln Ala  
 210 215 220

Pro Gly Gly His Glu Leu Ser Cys Asp Phe Trp Glu Leu Ile Gly Leu  
 225 230 235 240

Ala Pro Ala Gly Gly Ala Asp Asn Leu Ile Asn Glu Glu Ser Asp Val  
 245 250 255

Asp Val Gln Leu Asn Asn Arg His Met Met Ile Arg Gly Glu Asn Met  
 260 265 270

Ser Lys Ile Leu Lys Ala Arg Ser Met Val Thr Arg Cys Phe Arg Asp  
 275 280 285

His Phe Phe Asp Arg Gly Tyr Tyr Glu Val Thr Pro Pro Thr Leu Val  
 290 295 300

Gln Thr Gln Val Glu Gly Gly Ala Thr Leu Phe Lys Leu Asp Tyr Phe  
 305 310 315 320

Gly Glu Glu Ala Phe Leu Thr Gln Ser Ser Gln Leu Tyr Leu Glu Thr  
 325 330 335

Cys Leu Pro Ala Leu Gly Asp Val Phe Cys Ile Ala Gln Ser Tyr Arg  
 340 345 350

Ala Glu Gln Ser Arg Thr Arg Arg His Leu Ala Glu Tyr Thr His Val  
 355 360 365



## 4281

Glu Ala Glu Cys Pro Phe Leu Thr Phe Asp Asp Leu Leu Asn Arg Leu  
 370 375 380  
 Glu Asp Leu Val Cys Asp Val Val Asp Arg Ile Leu Lys Ser Pro Ala  
 385 390 395 400  
 Gly Ser Ile Val His Glu Leu Asn Pro Asn Phe Gln Pro Pro Lys Arg  
 405 410 415  
 Pro Phe Lys Arg Met Asn Tyr Ser Asp Ala Ile Val Trp Leu Lys Glu  
 420 425 430  
 His Asp Val Lys Lys Glu Asp Gly Thr Phe Tyr Glu Phe Gly Glu Asp  
 435 440 445  
 Ile Pro Glu Ala Pro Glu Arg Leu Met Thr Asp Thr Ile Asn Glu Pro  
 450 455 460  
 Ile Leu Leu Cys Arg Phe Pro Val Glu Ile Lys Ser Phe Tyr Met Gln  
 465 470 475 480  
 Arg Cys Pro Glu Asp Ser Arg Leu Thr Glu Ser Val Asp Val Leu Met  
 485 490 495  
 Pro Asn Val Gly Glu Ile Val Gly Gly Ser Met Arg Ile Phe Asp Ser  
 500 505 510  
 Glu Glu Ile Leu Ala Gly Tyr Lys Arg Glu Gly Ile Asp Pro Thr Pro  
 515 520 525  
 Tyr Tyr Trp Tyr Thr Asp Gln Arg Lys Tyr Gly Thr Cys Pro His Gly  
 530 535 540  
 Gly Tyr Gly Leu Gly Leu Glu Arg Phe Leu Thr Trp Ile Leu Asn Arg  
 545 550 555 560  
 Tyr His Ile Arg Asp Val Cys Leu Tyr Pro Arg Phe Val Gln Arg Cys  
 565 570 575  
 Thr Pro

&lt;210&gt; 4708

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

4282

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4708

Pro Leu Asn Gly Leu Leu Gly Gly Leu Asn Gly Ala Ala Ala Pro Asn  
 1 5 10 15

Pro Ala Ser Leu Ser Gln Ala Gly Gly Ala Pro Thr Leu Gln Leu Pro  
 20 25 30

Gly Cys Leu Asn Ser Leu Thr Glu Gln Gln Arg His Leu Leu Gln Gln  
 35 40 45

Gln Glu Gln Gln Leu Gln Gln Leu Gln Gln Leu Leu Ala Ser Pro Gln  
 50 55 60

Leu Thr Pro Glu His Gln Thr Val Val Tyr Gln Met Ile Gln Gln Ile  
 65 70 75 80

Gln Gln Lys Arg Glu Leu Gln Arg Leu Gln Met Ala Gly Gly Ser Gln  
 85 90 95

Leu Pro Met Ala Ser Leu Leu Ala Xaa Xaa Ser Thr Pro Leu Leu Ser  
 100 105 110

Ala Gly Thr Pro Gly Leu Leu Pro Thr Xaa Ser Ala Pro Pro Leu Leu  
 115 120 125

Pro Ala Gly Ala Leu Xaa Ala Pro Ser Leu Gly Asn Asn Thr Ser Leu  
 130 135 140

Met Ala Ala Ala Ala Ala Ala Gln Gln  
 145 150

4283

&lt;210&gt; 4709

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4709

Thr Cys Tyr Ile Leu Pro Lys Thr Ala Pro Leu Glu Cys Arg Ala Pro  
 1 5 10 15

Leu Arg Ser Pro Ser Pro Leu Gly Arg Leu Gln Val Leu Pro Arg Ser  
 20 25 30

Pro Leu His Val His Thr His Asn Ser Gly Lys Glu Val Leu Gly Leu  
 35 40 45

Gln Val Gln Arg Ser Arg Ser Gly Thr Gly Pro Ala Cys Ser Gln Ala  
 50 55 60

Gly Ser Gly Ala Val Gln Gly Gly Asn Trp Cys Ile Phe  
 65 70 75

&lt;210&gt; 4710

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4710

Leu Glu Pro Leu Gly Leu Glu Ser Gly Arg Gly Leu Pro Ser Gln Pro

## 4284

1	5	10	15
Leu Ser Phe Leu Pro Arg Pro Gln Glu Leu Leu Gln Thr Gln Asp Phe	20	25	30
Ser Lys Phe Gln Ala Leu Lys Pro Lys Leu Leu Asp Thr Val Asp Asp	35	40	45
Met Leu Ala Asn Asp Ile Ala Arg Leu Met Val Met Val Arg Gln Glu	50	55	60
Glu Ser Leu Met Pro Xaa Gln Val Val Lys Gly Gly Ala Phe Xaa Gly	65	70	75
Thr Met Asn Gly Pro Phe Gly His Gly Tyr Gly Glu Gly Ala Gly Glu	85	90	95
Gly Ile Asp Asp Val Glu Trp Val Val Gly Lys Asp Lys Pro Thr Tyr	100	105	110
Asp Glu Ile Phe Tyr Thr Leu Ser Pro Val Asn Gly Lys Ile Thr Gly	115	120	125
Ala Asn Ala Lys Xaa Glu Met Val Lys Val Gln Ala Ser Gln His Arg	130	135	140
Ala Lys Gly Lys Ile Trp Lys Leu Ala Asp Trp Thr Arg Thr Gly Leu	145	150	155
Leu Asp Asp Lys Glu Xaa Ala Leu Gly Asn His Leu	165	170	

&lt;210&gt; 4711

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4711

Leu Gln Ala Arg Leu Leu Ser Ala Lys Gly Glu Ile Trp Met Ala Ser	1	5	10	15
Thr Ser Tyr Asp Tyr Cys Arg Val Pro Met Glu Asp Gly Asp Lys Arg	20	25	30	
Cys Lys Leu Leu Leu Gly Ile Gly Ile Leu Val Leu Leu Ile Ile Val	35	40	45	
Ile Leu Gly Val Pro Leu Ile Ile Phe Thr Ile Lys Ala Asn Ser Glu	50	55	60	

## 4285

Ala Cys Arg Asp Gly Leu Arg Ala Val Met Glu Cys Arg Asn Val Thr  
 65 70 75 80  
 His Leu Leu Gln Gln Glu Leu Thr Glu Ala Gln Lys Gly Phe Gln Asp  
 85 90 95  
 Val Glu Ala Gln Ala Ala Thr Cys Asn His Thr Val Met Ala Leu Met  
 100 105 110  
 Ala Ser Leu Asp Ala Glu Lys Ala Gln Gly Gln Lys Lys Val Glu Glu  
 115 120 125  
 Leu Glu Gly Glu Ile Thr Thr Leu Asn His Lys Leu Gln Asp Ala Ser  
 130 135 140  
 Ala Glu Val Glu Arg Leu Arg Arg Glu Asn Gln Val Leu Ser Val Arg  
 145 150 155 160  
 Ile Ala Asp Lys Lys Tyr Tyr Pro Ser Ser Gln Asp Ser Ser Ser Ala  
 165 170 175  
 Ala Ala Pro Gln Leu Leu Ile Val Leu Leu Gly Leu Ser Ala Leu Leu  
 180 185 190  
 Gln

&lt;210&gt; 4712

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4712

Leu Glu Gly Ala Leu Thr Arg Thr Glu His Trp Ser Asn Asn Leu Ala  
 1 5 10 15  
 Thr Phe Pro Trp Lys Arg Ser Ala Arg Ser Gln Ile Arg Arg Asp Ala  
 20 25 30  
 Pro Ala Gly Lys Gly Gly Gly Cys Lys Thr Arg Ala Val Ser Leu Gly  
 35 40 45  
 Arg Lys Ala Val Val Ser Pro Gln Gly Val Gln Leu Cys Gly Thr His  
 50 55 60  
 Thr Tyr Arg Ser Lys  
 65

4286

&lt;210&gt; 4713

&lt;211&gt; 205

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4713

Val	Lys	Thr	Pro	Pro	Arg	Val	Leu	Thr	Leu	Ser	Glu	Arg	Pro	Leu	Asp
1				5					10					15	
Phe	Leu	Asp	Leu	Glu	Arg	Pro	Pro	Thr	Thr	Pro	Gln	Asn	Glu	Glu	Ile
			20					25					30		
Arg	Ala	Val	Gly	Arg	Leu	Lys	Arg	Glu	Arg	Ser	Met	Ser	Glu	Asn	Ala
		35					40					45			
Val	Arg	Gln	Asn	Gly	Gln	Leu	Val	Arg	Asn	Asp	Ser	Leu	Val	Thr	Pro
	50					55					60				
Ser	Pro	Gln	Gln	Ala	Arg	Val	Cys	Pro	Pro	His	Met	Leu	Pro	Glu	Asp
65					70					75				80	
Gly	Ala	Asn	Leu	Ser	Ser	Ala	Arg	Gly	Ile	Leu	Ser	Leu	Ile	Gln	Ser
			85						90					95	
Ser	Thr	Arg	Arg	Ala	Tyr	Gln	Gln	Ile	Leu	Asp	Val	Leu	Asp	Glu	Asn
			100					105					110		
Arg	Arg	Pro	Val	Leu	Arg	Gly	Gly	Ser	Xaa	Ala	Ala	Thr	Ser	Asn	Pro
		115					120						125		
His	His	Asp	Asn	Val	Arg	Tyr	Gly	Ile	Ser	Asn	Ile	Asp	Thr	Thr	Ile
	130					135					140				
Glu	Gly	Thr	Ser	Asp	Asp	Leu	Thr	Val	Val	Asp	Ala	Ala	Ser	Leu	Arg
145					150					155				160	
Arg	Gln	Ile	Ile	Lys	Leu	Asn	Arg	Arg	Leu	Gln	Leu	Leu	Glu	Glu	Glu
				165					170					175	
Asn	Lys	Glu	Arg	Ala	Lys	Arg	Glu	Met	Val	Met	Tyr	Ser	Ile	Thr	Val
			180					185					190		
Ala	Phe	Trp	Leu	Leu	Asn	Ser	Trp	Leu	Trp	Phe	Arg	Arg			
		195					200					205			

4287

&lt;210&gt; 4714

&lt;211&gt; 408

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4714

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Ile Pro Leu Pro Phe Gly Lys Pro Gln Pro Gln Ser Arg Arg Arg Pro
 1              5              10              15

Leu Arg Pro Pro Ser Ala Ser Ser Ala Ser Arg Pro Ala Arg Gly Ser
          20              25              30

Leu Arg Arg Ala Met Ala Thr Ser Pro Gln Lys Ser Pro Ser Val Pro
          35              40              45

Lys Ser Pro Thr Pro Lys Ser Pro Pro Ser Arg Lys Lys Asp Asp Ser
          50              55              60

Phe Leu Gly Lys Leu Gly Gly Thr Leu Ala Arg Arg Lys Lys Ala Lys
        65              70              75              80

Glu Val Ser Glu Leu Gln Glu Glu Gly Met Asn Ala Ile Asn Leu Pro
          85              90              95

Leu Ser Pro Ile Pro Phe Glu Leu Asp Pro Glu Asp Thr Met Leu Glu
          100             105             110

Glu Asn Glu Val Arg Thr Met Val Asp Pro Asn Ser Arg Ser Thr Pro
          115             120             125

Lys Leu Gln Glu Leu Met Lys Val Leu Ile Asp Trp Ile Asn Asp Val
          130             135             140

Leu Val Gly Glu Arg Ile Ile Val Lys Asp Leu Ala Glu Asp Leu Tyr
          145             150             155             160

Asp Gly Gln Val Leu Gln Lys Leu Phe Glu Lys Leu Glu Ser Glu Lys
          165             170             175

Leu Asn Val Ala Glu Val Thr Gln Ser Glu Ile Ala Gln Lys Gln Lys
          180             185             190

Leu Gln Thr Val Leu Glu Lys Ile Asn Glu Thr Leu Lys Leu Pro Pro
          195             200             205

Arg Ser Ile Lys Trp Asn Val Asp Ser Val His Ala Lys Ser Leu Val
          210             215             220

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## 4288

Ala Ile Leu His Leu Leu Val Ala Leu Ser Gln Tyr Phe Arg Ala Pro  
 225 230 235 240  
 Ile Arg Leu Pro Asp His Val Ser Ile Gln Val Val Val Val Gln Lys  
 245 250 255  
 Arg Glu Gly Ile Leu Gln Ser Arg Gln Ile Gln Glu Glu Ile Thr Gly  
 260 265 270  
 Asn Thr Glu Ala Leu Ser Gly Arg His Glu Arg Asp Ala Phe Asp Thr  
 275 280 285  
 Leu Phe Asp His Ala Pro Asp Lys Leu Asn Val Val Lys Lys Thr Leu  
 290 295 300  
 Ile Thr Phe Val Asn Lys His Leu Asn Lys Leu Asn Leu Glu Val Thr  
 305 310 315 320  
 Glu Leu Glu Thr Gln Phe Ala Asp Gly Val Tyr Leu Val Leu Leu Met  
 325 330 335  
 Gly Leu Leu Glu Gly Tyr Phe Val Pro Leu His Ser Phe Phe Leu Thr  
 340 345 350  
 Pro Asp Ser Phe Glu Gln Lys Val Leu Asn Val Ser Phe Ala Phe Glu  
 355 360 365  
 Leu Met Gln Asp Gly Gly Leu Glu Lys Pro Lys Pro Arg Pro Glu Asp  
 370 375 380  
 Ile Val Asn Cys Asp Leu Lys Ser Thr Leu Arg Val Leu Tyr Asn Leu  
 385 390 395 400  
 Phe Thr Lys Tyr Arg Asn Val Glu  
 405

&lt;210&gt; 4715

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4715

Asp Pro Tyr Ser Gln Ser Ala Thr Ala Phe Asn Glu Met Ile Gln Glu  
 1 5 10 15  
 Asn Gly Tyr Asn Phe Asp Arg Ser Ser Ser Thr Phe Ser Gly Ile Lys  
 20 25 30  
 Glu Leu Ala Arg Arg Phe Ala Leu Thr Phe Gly Leu Asp Gln Leu Lys



4289

35					40					45					
Thr	Arg	Glu	Ala	Ile	Ala	Met	Leu	His	Lys	Asp	Gly	Ile	Glu	Phe	Ala
50					55					60					
Phe	Lys	Glu	Pro	Asn	Pro	Gln	Gly	Glu	Ser	His	Pro	Pro	Leu	Asn	Leu
65					70					75					80
Ala	Phe	Leu	Asp	Ile	Leu	Ser	Glu	Phe	Ser	Ser	Lys	Leu	Leu	Arg	Gln
				85					90					95	
Asp	Lys	Arg	Thr	Val	Tyr	Val	Tyr	Leu	Glu	Lys	Phe	Met	Thr	Phe	Gln
			100					105					110		
Met	Ser	Leu	Arg	Arg	Glu	Asp	Val	Trp	Leu	Pro	Leu	Met	Ser	Tyr	Arg
		115					120					125			
Asn	Ser	Leu	Leu	Ala	Gly	Gly	Asp	Asp	Asp	Thr	Met	Ser	Val	Ile	Ser
		130					135				140				
Gly	Ile	Ser	Ser	Arg	Gly	Ser	Thr	Val	Arg	Ser	Lys	Lys	Ser	Lys	Pro
145					150					155					160
Ser	Thr	Gly	Lys	Arg	Lys	Val	Val	Glu	Gly	Met	Gln	Leu	Ser	Leu	Thr
			165						170					175	
Glu	Glu	Ser	Ser	Ser	Ser	Asp	Ser	Met	Trp	Leu	Ser	Arg	Glu	Gln	Thr
		180						185					190		
Leu	His	Thr	Pro	Val	Met	Met	Gln	Thr	Pro	Gln	Leu	Thr	Ser	Thr	Ile
		195					200					205			
Met	Arg	Glu	Pro	Lys	Arg	Leu	Arg	Pro	Glu	Asp	Ser	Phe	Met	Ser	Val
		210				215					220				
Tyr	Pro	Met	Gln	Thr	Glu	His	His	Gln	Thr	Pro	Leu	Asp	Tyr	Asn	Arg
225					230					235					240
Arg	Gly	Thr	Ser	Leu	Met	Glu	Asp	Asp	Glu	Glu	Pro	Ile	Val	Glu	Asp
			245						250					255	
Val	Met	Met	Ser	Ser	Glu	Gly	Arg	Ile	Glu	Asp	Leu	Asn	Glu	Gly	Met
			260					265					270		
Asp	Phe	Asp	Thr	Met	Asp	Ile	Asp	Leu	Pro	Pro	Ser	Lys	Asn	Arg	Arg
		275					280					285			
Glu	Arg	Thr	Glu	Leu	Lys	Pro	Asp	Phe	Phe	Asp	Pro	Ala	Ser	Ile	Met
		290				295					300				
Asp	Glu	Ser	Val	Leu	Gly	Val	Ser	Met	Phe						

## 4290

305

310

&lt;210&gt; 4716

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (180)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4716

Arg	Pro	Cys	Pro	Glu	Glu	Ala	Glu	Ile	Gly	Ile	Ala	Met	Gly	Ser	Gly
1				5					10					15	

Thr	Ala	Val	Ala	Lys	Thr	Ala	Ser	Glu	Met	Val	Leu	Ala	Asp	Asp	Asn
			20					25					30		

Phe	Ser	Thr	Ile	Val	Ala	Ala	Val	Glu	Glu	Gly	Arg	Ala	Ile	Tyr	Asn
		35					40					45			

Asn	Met	Lys	Gln	Phe	Ile	Arg	Tyr	Leu	Ile	Ser	Ser	Asn	Val	Gly	Glu
50						55					60				

Val	Val	Cys	Ile	Phe	Leu	Thr	Ala	Ala	Leu	Gly	Leu	Pro	Glu	Ala	Leu
65					70					75					80

Ile	Pro	Val	Gln	Leu	Leu	Trp	Val	Asn	Leu	Val	Thr	Asp	Gly	Leu	Pro
			85						90					95	

Ala	Thr	Ala	Leu	Gly	Phe	Asn	Pro	Pro	Asp	Leu	Asp	Ile	Met	Asp	Arg
			100					105					110		

Pro	Pro	Arg	Ser	Pro	Lys	Glu	Pro	Leu	Ile	Ser	Gly	Trp	Leu	Phe	Phe
		115					120					125			

Arg	Tyr	Met	Ala	Ile	Gly	Gly	Tyr	Val	Gly	Ala	Ala	Thr	Val	Gly	Ala
130						135					140				

Ala	Ala	Trp	Trp	Phe	Leu	Tyr	Ala	Glu	Asp	Gly	Pro	His	Val	Asn	Tyr
145					150					155					160

Ser	Gln	Leu	Thr	His	Phe	Met	Gln	Cys	Thr	Glu	Asp	Asn	Thr	His	Phe
				165					170					175	

Glu	Gly	Ile	Xaa	Cys	Glu	Val	Phe	Glu	Ala	Pro	Glu	Pro	Met	Thr	Met
			180					185					190		

## 4291

Ala Leu Ser Val Leu Val Thr Ile Glu Met Cys Asn Ala Leu Asn Ser  
 195 200 205

Leu Ser Glu Asn Gln Ser Leu Leu Arg Met Pro Pro Trp Val Asn Ile  
 210 215 220

Trp Leu Leu Gly Ser Ile Cys Leu Ser Met Ser Leu His Phe Leu Ile  
 225 230 235 240

Leu Tyr Val Asp Pro Leu Pro Met Ile Phe Lys Leu Arg Ala Leu Asp  
 245 250 255

Leu Thr Gln Trp Leu Met Val Leu Lys Ile Ser Leu Pro Val Ile Gly  
 260 265 270

Leu Asp Glu Ile Leu Lys Phe Val Ala Arg Asn Tyr Leu Glu Gly  
 275 280 285

<210> 4717

<211> 47

<212> PRT

<213> Homo sapiens

<400> 4717

Gln Arg Pro Cys Gly Leu Gln Gly Pro Lys Tyr Leu Leu Ser Gly Leu  
 1 5 10 15

Leu Leu Lys Lys Phe Ser Gln Ala Trp Trp Trp Ala Pro Val Ile Pro  
 20 25 30

Ala Thr Arg Glu Ser Glu Ala Gly Glu Ser Leu Glu Pro Gly Arg  
 35 40 45

<210> 4718

<211> 436

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (382)

<223> Xaa equals any of the naturally occurring L-amino acids

4292

&lt;400&gt; 4718

Ala Xaa Asp Pro Ser Arg Val Met Asp Gln His Lys Leu Thr Arg Asp  
 1 5 10 15

Gln Trp Glu Asp Arg Ile Gln Val Trp His Ala Glu His Arg Gly Met  
 20 25 30

Leu Lys Asp Asn Ala Met Leu Glu Tyr Leu Lys Ile Ala Gln Asp Leu  
 35 40 45

Glu Met Tyr Gly Ile Asn Tyr Phe Glu Ile Lys Asn Lys Lys Gly Thr  
 50 55 60

Asp Leu Trp Leu Gly Val Asp Ala Leu Gly Leu Asn Ile Tyr Glu Lys  
 65 70 75 80

Asp Asp Lys Leu Thr Pro Lys Ile Gly Phe Pro Trp Ser Glu Ile Arg  
 85 90 95

Asn Ile Ser Phe Asn Asp Lys Lys Phe Val Ile Lys Pro Ile Asp Lys  
 100 105 110

Lys Ala Pro Asp Phe Val Phe Tyr Ala Pro Arg Leu Arg Ile Asn Lys  
 115 120 125

Arg Ile Leu Gln Leu Cys Met Gly Asn His Glu Leu Tyr Met Arg Arg  
 130 135 140

Arg Lys Pro Asp Thr Ile Glu Val Gln Gln Met Lys Ala Gln Ala Arg  
 145 150 155 160

Glu Glu Lys His Gln Lys Gln Leu Glu Arg Gln Gln Leu Glu Thr Glu  
 165 170 175

Lys Lys Arg Arg Glu Thr Val Glu Arg Glu Lys Glu Gln Met Met Arg  
 180 185 190

Glu Lys Glu Glu Leu Met Leu Arg Leu Gln Asp Tyr Glu Glu Lys Thr  
 195 200 205

Lys Lys Ala Glu Arg Glu Leu Ser Glu Gln Ile Gln Arg Ala Leu Gln  
 210 215 220

Leu Glu Glu Glu Arg Lys Arg Ala Gln Glu Glu Ala Glu Arg Leu Glu  
 225 230 235 240

Ala Asp Arg Met Ala Ala Leu Arg Ala Lys Glu Glu Leu Glu Arg Gln  
 245 250 255

Ala Val Asp Gln Ile Lys Ser Gln Glu Gln Leu Ala Ala Glu Leu Ala

## 4293

260	265	270
Glu Tyr Thr Ala Lys Ile Ala Leu Leu Glu Glu Ala Arg Arg Arg Lys		
275	280	285
Glu Asp Glu Val Glu Glu Trp Gln His Arg Ala Lys Glu Ala Gln Asp		
290	295	300
Asp Leu Val Lys Thr Lys Glu Glu Leu His Leu Val Met Thr Ala Pro		
305	310	315
Pro Pro Pro Pro Pro Pro Val Tyr Glu Pro Val Ser Tyr His Val Gln		
325	330	335
Glu Ser Leu Gln Asp Glu Gly Ala Glu Pro Thr Gly Tyr Ser Ala Glu		
340	345	350
Leu Ser Ser Glu Gly Ile Arg Asp Asp Arg Asn Glu Glu Lys Arg Ile		
355	360	365
Thr Glu Ala Glu Lys Asn Glu Arg Val Gln Arg Gln Leu Xaa Thr Leu		
370	375	380
Ser Ser Glu Leu Ser Gln Ala Arg Asp Glu Asn Lys Arg Thr His Asn		
385	390	395
Asp Ile Ile His Asn Glu Asn Met Arg Gln Gly Arg Asp Lys Tyr Lys		
405	410	415
Thr Leu Arg Gln Ile Arg Gln Gly Asn Thr Lys Gln Arg Ile Asp Glu		
420	425	430
Phe Glu Ala Leu		
435		

&lt;210&gt; 4719

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4719

Leu	Gln	Val	Val	Gln	Ala	Asp	Ile	Ala	Ser	Ile	Asp	Ser	Asp	Ala	Val
1				5				10						15	

Val	His	Pro	Thr	Asn	Thr	Asp	Phe	Tyr	Ile	Gly	Gly	Glu	Val	Gly	Asn
			20				25						30		

Thr	Leu	Glu	Lys	Lys	Gly	Gly	Lys	Glu	Phe	Val	Glu	Ala	Val	Leu	Glu
			35				40					45			

4294

Leu Arg Lys Lys Asn Gly Pro Leu Glu Val Ala Gly Ala Ala Val Ser  
 50 55 60

Ala Gly His Gly Leu Pro Ala Lys Phe Val Ile His Cys Asn Ser Pro  
 65 70 75 80

Val Trp Gly Ala Asp Lys Cys Glu Glu Leu Leu Glu Lys Thr Val Lys  
 85 90 95

Asn Cys Leu Ala Leu Ala Asp Asp Lys Lys Leu Lys Ser Ile Ala Phe  
 100 105 110

Pro Ser Ile Gly Ser Gly Arg Asn Gly Phe Pro Lys Gln Thr Ala Ala  
 115 120 125

Gln Leu Ile Leu Lys Ala Ile Ser Ser Tyr Phe Val Ser Thr Met Ser  
 130 135 140

Ser Ser Ile Lys Thr Val Tyr Phe Val Leu Phe Asp Ser Glu Ser Ile  
 145 150 155 160

Gly Ile Tyr Val Gln Glu Met Ala Lys Leu Asp Ala Asn  
 165 170

<210> 4720

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4720

Arg Gly Asp Pro Phe Pro Leu Val Gly Phe Gly Ser Cys Val Ser Ser  
 1 5 10 15

## 4295

Leu Cys Lys Thr Leu His Gln Gly Tyr Pro Gly His Glu Gly Val Pro  
                   20                                  25                                  30  
 Pro Val Pro Val Tyr Phe Cys Thr Arg Thr Ser Asn Lys Thr Gly Arg  
                   35                                  40                                  45  
 Cys Leu Gly Asn Cys His Gly Val Arg Glu Arg Asp Ala Phe Tyr Ser  
                   50                                  55                                  60  
 Xaa Gly Val Asp Asp Xaa Thr Xaa Val Ile Asn Cys Ile Cys Trp Glu  
                   65                                  70                                  75                                  80  
 Lys Val Glu Tyr

<210> 4721  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens

<400> 4721  
 Arg Gly Gly Gly Cys Ser Glu Pro Arg Ser Arg His Cys Thr Pro Ala  
           1                                  5                                  10                                  15  
 Trp Gly Thr Arg Val Arg Leu Ser Leu Lys Lys Lys Lys Lys Glu Lys  
                   20                                  25                                  30  
 Lys Ile Arg Asp Ile Val His Ile Pro Leu Leu Cys Leu His Arg Cys  
                   35                                  40                                  45  
 Pro

<210> 4722  
 <211> 267  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (88)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (90)  
 <223> Xaa equals any of the naturally occurring L-amino acids

4296

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (140)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (165)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (173)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4722

Asn	Asn	Leu	Asn	Ser	Val	Leu	Ala	Glu	Arg	Leu	Glu	Lys	Trp	Leu	Gln
1				5					10					15	

Leu	Met	Leu	Met	Trp	His	Pro	Arg	Gln	Arg	Gly	Thr	Asp	Pro	Thr	Tyr
		20						25					30		

Gly	Pro	Asn	Gly	Cys	Phe	Lys	Ala	Leu	Asp	Asp	Ile	Leu	Asn	Leu	Lys
		35					40					45			

Leu	Val	His	Ile	Leu	Asn	Met	Val	Thr	Gly	Thr	Ile	His	Thr	Tyr	Pro
	50					55					60				

Val	Thr	Glu	Asp	Glu	Ser	Leu	Gln	Ser	Leu	Lys	Ala	Arg	Ile	Gln	Gln
65					70					75				80	

Asp	Thr	Gly	Ile	Pro	Glu	Glu	Xaa	Gln	Xaa	Leu	Leu	Gln	Glu	Xaa	Gly
				85					90					95	

Leu	Ala	Leu	Ile	Pro	Asp	Lys	Pro	Ala	Thr	Gln	Cys	Ile	Ser	Asp	Gly
		100						105					110		

Lys	Leu	Asn	Glu	Gly	His	Thr	Leu	Asp	Met	Asp	Leu	Val	Phe	Leu	Phe
		115					120					125			



## 4297

Asp Asn Ser Lys Ile Thr Tyr Glu Thr Gln Ile Xaa Pro Arg Pro Gln  
 130 135 140  
 Pro Glu Ser Val Ser Cys Ile Leu Gln Glu Pro Lys Arg Asn Leu Ala  
 145 150 155 160  
 Phe Xaa Gln Leu Xaa Lys Val Trp Gly Gln Val Trp Xaa Ser Ile Gln  
 165 170 175  
 Thr Leu Lys Glu Asp Cys Asn Arg Leu Gln Gln Gly Gln Arg Ala Ala  
 180 185 190  
 Met Met Asn Leu Leu Arg Asn Asn Ser Cys Leu Ser Lys Met Lys Asn  
 195 200 205  
 Ser Met Ala Ser Met Ser Gln Gln Leu Lys Ala Lys Leu Asp Phe Phe  
 210 215 220  
 Lys Thr Ser Ile Gln Ile Asp Leu Glu Lys Tyr Ser Glu Gln Thr Glu  
 225 230 235 240  
 Phe Gly Ile Thr Ser Asp Lys Leu Leu Leu Ala Trp Arg Glu Met Glu  
 245 250 255  
 Gln Ala Val Glu Leu Cys Gly Arg Glu Asn Glu  
 260 265

<210> 4723  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 4723  
 His Phe Leu Thr Cys Gly Arg Glu Lys Leu Pro Asn Phe Phe Phe Leu  
 1 5 10 15  
 Leu Leu Asn Cys Asn Ile Val Glu Asp Phe Phe Phe Leu Phe Ser Leu  
 20 25 30  
 Ile Gly Ala Phe Cys Thr Gly Phe Val Cys Val Cys Val Cys Val Cys  
 35 40 45  
 Ala Arg Ala Cys Val Leu Ile Cys Phe Leu Ile His Ser Tyr Pro Leu  
 50 55 60  
 Cys Leu Ser Tyr His Cys Leu Pro Gly Tyr Leu Lys Gln Val His Thr  
 65 70 75 80  
 Phe Glu Lys Lys Lys Lys Cys Cys Leu Lys Asn Val Phe Ser Cys Cys

4298

85

90

95

Ser Lys Tyr Phe Ala  
100

&lt;210&gt; 4724

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4724

Arg Ser Pro Asp Ser Ser Gln Val Leu Gly Ala Arg Asp Ala Asp Ser  
1 5 10 15

Ser Ser Gly Cys Phe Ser Arg Cys Ser Trp Ala Leu Ala Ser Asp Gly  
20 25 30

Ala Leu Arg Gly Cys Phe Pro Gly Ala Arg Phe Cys Ser Thr Thr Ser  
35 40 45

Xaa Glu Gly Asn Thr Thr Phe Thr Gly Ser Ala Ala Ala Pro Gly Pro  
50 55 60

Ser Ala Ser Arg Gln Gly Pro Lys Pro Gly Pro Pro Ala Ala Thr Val  
65 70 75 80

Ala Arg Gln Thr Ser Arg Val Ser Pro Ala Pro Pro Cys Ser Leu Arg  
85 90 95

Pro Gly Leu Arg His Glu Ser Ala Pro Ser Gly Ile Gly Asp Val Thr  
100 105 110

Ala Arg Gly Ala Leu Arg Gly Leu Gly Cys Thr Val Arg Val Thr Ala  
115 120 125

Ala Cys Ala Gly Asn His Gly Cys Ser Gln Met Leu Ala Leu Arg Asn  
130 135 140

Ser Lys Trp Glu Thr Ala Ser Arg Arg Gly Val Leu Thr Gly Arg Leu  
145 150 155 160

Gly Ile Lys

4299

&lt;210&gt; 4725

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4725

Glu Ser Leu Trp Ala Phe Cys Leu Ser Leu Leu Glu Arg Leu Ala Cys  
 1 5 10 15

Cys Ser Leu Leu Tyr Pro Glu Val Cys Leu Trp Asp Phe Ser Pro Val  
 20 25 30

Ala Val Glu Thr Arg Arg Pro Thr Leu Phe Glu Thr Gln Met Leu Leu  
 35 40 45

Ser Leu Ala Ser Pro Ser Leu Ser Ser Pro Asn Glu Pro Thr Phe Cys  
 50 55 60

Thr Ser Thr Arg Met Pro Gly Arg Leu Gly Pro Gln Arg Leu Leu Phe  
 65 70 75 80

Gln Asn Leu Trp Lys Pro Arg Leu Asn Val Pro  
 85 90

&lt;210&gt; 4726

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4726

Ile Ser Ser His Leu Val Ser Lys Leu Leu Leu Thr Met Val Val Leu  
 1 5 10 15

Leu Glu Gln Ser Phe Gln Ala Pro Leu Arg Thr Ile Phe Asn Ser Asp  
 20 25 30

Thr Lys Gly Lys Thr Gly Cys Tyr Phe Cys Phe Val Val Gln Leu Val  
 35 40 45

Leu Tyr Ser His Met Leu Tyr Ile Leu Asn Ser Pro Val Leu Phe Arg  
 50 55 60

Leu Val Asn Arg Thr Ile Ser Met  
 65 70

## 4300

&lt;210&gt; 4727

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4727

Gly Gly Leu Ala Trp Arg Ala Leu Arg Thr Ser Gly Thr Leu Leu Arg  
 1 5 10 15

Val Glu Arg Leu Leu Leu Glu Asp Tyr Cys Pro Glu Glu Lys Met Phe  
 20 25 30

Gly Phe His Lys Pro Lys Met Tyr Arg Ser Ile Glu Gly Cys Cys Ile  
 35 40 45

Cys Arg Ala Lys Ser Ser Ser Ser Arg Phe Thr Asp Ser Lys Arg Tyr  
 50 55 60

Glu Lys Asp Phe Gln Ser Cys Phe Gly Leu His Glu Thr Arg Ser Gly  
 65 70 75 80

Asp Ile Cys Asn Ala Cys Val Leu Leu Val Lys Arg Trp Lys Lys Leu  
 85 90 95

Pro Ala Gly Ser Lys Lys Asn Trp Asn His Val Val Asp Ala Arg Ala  
 100 105 110

Gly Pro Ser Leu Lys Thr Thr Leu Lys Pro Lys Lys Val Lys Thr Leu  
 115 120 125

Ser Gly Asn Arg Ile Lys Ser Asn Gln Ile Ser Lys Leu Gln Lys Glu  
 130 135 140

Phe Lys Arg His Asn Ser Asp Ala His Ser Thr Thr Ser Ser Ala Ser  
 145 150 155 160

Pro Ala Gln Ser Pro Cys Tyr Ser Asn Gln Ser Asp Asp Gly Ser Asp  
 165 170 175

Thr Glu Met Ala Ser Gly Ser Asn Arg Thr Pro Val Phe Ser Phe Leu  
 180 185 190

Asp Leu Thr Tyr Trp Lys Arg Gln Lys Ile Cys Cys Gly Ile Ile Tyr  
 195 200 205

Lys Gly Arg Phe Gly Glu Val Leu Ile Asp Thr His Leu Phe Lys Pro  
 210 215 220

Cys Cys Ser Asn Lys Lys Ala Ala Ala Glu Lys Pro Glu Glu Gln Gly  
 225 230 235 240

## 4301

Pro Glu Pro Leu Pro Ile Ser Thr Gln Glu Trp  
                   245                  250

&lt;210&gt; 4728

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4728

Cys Cys Asp Ala Cys Phe Gln Asp Pro Tyr Gly Val Ala Val Gly Gly  
   1                  5                  10                  15

Thr Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg  
                   20                  25                  30

Met Ile Ala Gln Lys Ile Ser Val Arg Thr Gly Lys Ser  
                   35                  40                  45

&lt;210&gt; 4729

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4729

Leu Pro Ala Gly Met Ser Ala Lys Met Leu Gly Gly Val Phe Lys Ile  
   1                  5                  10                  15

Asp Trp Ile Cys Arg Arg Glu Leu Pro Phe Thr Lys Ser Ala His Leu  
                   20                  25                  30

Thr Asn Pro Trp Asn Glu His Lys Pro Val Lys Ile Gly Arg Asp Gly  
                   35                  40                  45

## 4302

Gln Glu Ile Glu Leu Glu Cys Gly Thr Gln Leu Cys Leu Leu Phe Pro  
 50 55 60  
 Pro Asp Glu Ser Ile Asp Leu Tyr Gln Val Ile His Lys Met Arg His  
 65 70 75 80  
 Lys Arg Arg Met His Ser Gln Pro Arg Ser Arg Gly Arg Pro Ser Arg  
 85 90 95  
 Glu Asn Gln Ser Xaa Xaa Xaa Glu Gly Val Asp Gln Lys Ile Met Ile  
 100 105 110  
 Phe Ile Thr Ala Glu Arg Asn Gln Gly Leu Thr Ile Pro Leu Ser Phe  
 115 120 125  
 Thr Arg Asp Gln Gly Ile  
 130

&lt;210&gt; 4730

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4730

Leu Val Pro Pro Lys Ser Trp Thr Ile Gln Val Gly Leu Val Ser Leu  
 1 5 10 15  
 Leu Asp Asn Pro Ala Pro Ser His Leu Val Glu Lys Ile Val Tyr His  
 20 25 30  
 Ser Lys Tyr Lys Pro Lys Arg Leu Gly Asn Asp Ile Ala Leu Met Lys  
 35 40 45  
 Leu Ala Gly Pro Leu Thr Phe Asn Glu Met Ile Gln Pro Val Cys Leu  
 50 55 60  
 Pro Asn Ser Glu Glu Asn Phe Pro Asp Gly Lys Val Cys Trp Thr Ser  
 65 70 75 80  
 Gly Trp Gly Ala Thr Glu Asp Gly Ala Gly Asp Ala Ser Pro Val Leu  
 85 90 95  
 Asn His Ala Ala Val Pro Leu Ile Ser Asn Lys Ile Cys Asn His Arg  
 100 105 110  
 Asp Val Tyr Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala Gly Tyr  
 115 120 125

## 4303

Leu Thr Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu  
 130 135 140

Val Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr Ser Phe  
 145 150 155 160

Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr Arg Val  
 165 170 175

Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp Leu Lys  
 180 185 190

Thr

<210> 4731

<211> 426

<212> PRT

<213> Homo sapiens

<400> 4731

Cys His Arg Gln Arg Arg Cys Leu Leu Pro Ser Asp Cys Glu Lys Thr  
 1 5 10 15

Ile Thr Gly Pro Arg Asn Cys His Ala Asn Arg Leu Pro Cys Ile Tyr  
 20 25 30

Leu Val Asp Ser Gly Gly Ala Tyr Leu Pro Arg Gln Ala Asp Val Phe  
 35 40 45

Pro Asp Arg Asp His Phe Gly Arg Thr Phe Tyr Asn Gln Ala Ile Met  
 50 55 60

Ser Ser Lys Asn Ile Ala Gln Ile Ala Val Val Met Gly Ser Cys Thr  
 65 70 75 80

Ala Gly Gly Ala Tyr Val Pro Ala Met Ala Asp Glu Asn Ile Ile Val  
 85 90 95

Arg Lys Gln Gly Thr Ile Phe Leu Ala Gly Pro Pro Leu Val Lys Ala  
 100 105 110

Ala Thr Gly Glu Glu Val Ser Ala Glu Asp Leu Gly Gly Ala Asp Leu  
 115 120 125

His Cys Arg Lys Ser Gly Val Ser Asp His Trp Ala Leu Asp Asp His  
 130 135 140

His Ala Leu His Leu Thr Arg Lys Val Val Arg Asn Leu Asn Tyr Gln

4304

BNSDOCID: <WO\_\_0122920A2\_I\_>



## 4305

420

425

&lt;210&gt; 4732

&lt;211&gt; 651

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4732

Tyr Phe Thr Asn Glu Thr Asp Asp Ile Ala Asn Leu Glu Ala Ser Val  
 1 5 10 15

Leu Glu Asn Pro Ser His Val Gln Leu Trp Leu Lys Leu Ala Tyr Lys  
 20 25 30

Tyr Leu Asn Gln Asn Glu Gly Glu Cys Ser Glu Ser Leu Asp Ser Ala  
 35 40 45

Leu Asn Val Leu Ala Arg Ala Leu Glu Asn Asn Lys Asp Asn Pro Glu  
 50 55 60

Ile Trp Cys His Tyr Leu Arg Leu Phe Ser Lys Arg Gly Thr Lys Asp  
 65 70 75 80

Glu Val Gln Glu Met Cys Glu Thr Ala Val Glu Tyr Ala Pro Asp Tyr  
 85 90 95

Gln Ser Phe Trp Thr Phe Leu His Leu Glu Ser Thr Phe Glu Glu Lys  
 100 105 110

Asp Tyr Val Cys Glu Arg Met Leu Glu Phe Leu Met Gly Ala Ala Lys  
 115 120 125

Gln Glu Thr Ser Asn Ile Leu Ser Phe Gln Leu Leu Glu Ala Leu Leu  
 130 135 140

Phe Arg Val Gln Leu His Ile Phe Thr Gly Arg Cys Gln Ser Ala Leu  
 145 150 155 160

Ala Ile Leu Gln Asn Ala Leu Lys Ser Ala Asn Asp Gly Ile Val Ala  
 165 170 175

Glu Tyr Leu Lys Thr Ser Asp Arg Cys Leu Ala Trp Leu Ala Tyr Ile  
 180 185 190

His Leu Ile Glu Phe Asn Ile Leu Pro Ser Lys Phe Tyr Asp Pro Ser  
 195 200 205

Asn Asp Asn Pro Ser Arg Ile Val Asn Thr Glu Ser Phe Val Met Pro  
 210 215 220

## 4306

Trp Gln Ala Val Gln Asp Val Lys Thr Asn Pro Asp Met Leu Leu Ala  
 225 230 235 240  
 Val Phe Glu Asp Ala Val Lys Ala Cys Thr Asp Glu Ser Leu Ala Val  
 245 250 255  
 Glu Glu Arg Ile Glu Ala Cys Leu Pro Leu Tyr Thr Asn Met Ile Ala  
 260 265 270  
 Leu His Gln Leu Leu Glu Arg Tyr Glu Ala Ala Met Glu Leu Cys Lys  
 275 280 285  
 Ser Leu Leu Glu Ser Cys Pro Ile Asn Cys Gln Leu Leu Glu Ala Leu  
 290 295 300  
 Val Ala Leu Tyr Leu Gln Thr Asn Gln His Asp Lys Ala Arg Ala Val  
 305 310 315 320  
 Trp Leu Thr Ala Phe Glu Lys Asn Pro Gln Asn Ala Glu Val Phe Tyr  
 325 330 335  
 His Met Cys Lys Phe Phe Ile Leu Gln Asn Arg Gly Asp Asn Leu Leu  
 340 345 350  
 Pro Phe Leu Arg Lys Phe Ile Ala Ser Phe Phe Lys Pro Gly Phe Glu  
 355 360 365  
 Lys Tyr Asn Asn Leu Asp Leu Phe Arg Tyr Leu Leu Asn Ile Pro Gly  
 370 375 380  
 Pro Ile Asp Ile Pro Ser Arg Leu Cys Lys Gly Asn Phe Asp Asp Asp  
 385 390 395 400  
 Met Phe Asn His Gln Val Pro Tyr Leu Trp Leu Ile Tyr Cys Leu Cys  
 405 410 415  
 His Pro Leu Gln Ser Ser Ile Lys Glu Thr Val Glu Ala Tyr Glu Ala  
 420 425 430  
 Ala Leu Gly Val Ala Met Arg Cys Asp Ile Val Gln Lys Ile Trp Met  
 435 440 445  
 Asp Tyr Leu Val Phe Ala Asn Asn Arg Ala Ala Gly Ser Arg Asn Lys  
 450 455 460  
 Val Gln Glu Phe Lys Phe Phe Thr Asp Leu Val Asn Arg Cys Leu Val  
 465 470 475 480  
 Thr Val Pro Ala Arg Tyr Pro Ile Pro Phe Ser Ser Ala Asp Tyr Trp  
 485 490 495

## 4307

Ser	Asn	Tyr	Glu	Phe	His	Asn	Arg	Val	Ile	Phe	Phe	Tyr	Leu	Ser	Cys	500	505	510
Val	Pro	Lys	Thr	Gln	His	Ser	Lys	Thr	Leu	Glu	Arg	Phe	Cys	Ser	Val	515	520	525
Met	Pro	Ala	Asn	Ser	Gly	Leu	Ala	Leu	Arg	Leu	Leu	Gln	His	Glu	Trp	530	535	540
Glu	Glu	Ser	Asn	Val	Gln	Ile	Leu	Lys	Leu	Gln	Ala	Lys	Met	Phe	Thr	545	550	555
Tyr	Asn	Ile	Pro	Thr	Cys	Leu	Ala	Thr	Trp	Lys	Ile	Ala	Ile	Ala	Ala	565	570	575
Glu	Ile	Val	Leu	Lys	Gly	Gln	Arg	Glu	Val	His	Arg	Leu	Tyr	Gln	Arg	580	585	590
Ala	Leu	Gln	Lys	Leu	Pro	Leu	Cys	Ala	Ser	Leu	Trp	Lys	Asp	Gln	Leu	595	600	605
Leu	Phe	Glu	Ala	Ser	Glu	Gly	Gly	Lys	Thr	Asp	Asn	Leu	Arg	Lys	Leu	610	615	620
Val	Ser	Lys	Cys	Gln	Glu	Ile	Gly	Val	Ser	Leu	Asn	Glu	Leu	Leu	Asn	625	630	635
Leu	Asn	Ser	Asn	Lys	Thr	Glu	Ser	Lys	Asn	His						645	650	

&lt;210&gt; 4733

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

4308

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4733

Arg	Ala	Pro	Ser	Phe	Lys	Lys	Leu	Xaa	Gly	Xaa	Pro	Pro	Xaa	Gly	Xaa
1				5				10						15	

Xaa	Arg	Glu	Xaa	Ser	Gly	Xaa	Arg	Xaa	Arg	Pro	Gln	Ser	Ala	Arg	Ala
		20						25					30		

Ala	Met	Ala	Leu	Leu	Leu	Ser	Val	Leu	Arg	Val	Leu	Leu	Gly	Gly	Phe
	35						40						45		

Phe	Ala	Leu	Val	Gly	Leu	Ala	Lys	Leu	Ser	Glu	Glu	Ile	Ser	Ala	Pro
	50					55					60				

Val	Ser	Glu	Arg	Met	Asn	Ala	Leu	Phe	Val	Gln	Phe	Ala	Glu	Val	Phe
65					70					75					80

Pro	Leu	Lys	Val	Phe	Gly	Tyr	Gln	Pro	Asp	Pro	Leu	Lys	Leu	Pro	Asn
				85					90					95	

Ser	Cys	Gly	Leu	Ser	Gly	Thr	Ala	Gly	Trp	Val	Ala	Ala	Gly	His	Gly
		100						105					110		

Pro	Thr	Asp	Ala	Ala	Arg	Asp	Gln
	115						120

4309

&lt;210&gt; 4734

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (232)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4734

Ser	Thr	Phe	Asp	Lys	Gly	Tyr	Gly	Lys	Tyr	Phe	Ala	Ala	Gly	Glu	Lys
1				5				10						15	

Tyr	His	Thr	Ser	Ser	Val	Phe	His	Lys	Ala	Gln	Arg	Ala	Arg	Trp	Lys
			20					25					30		

Asn	Arg	Arg	Ser	Trp	Arg	Leu	Ser	Gly	Val	His	Trp	Ser	Pro	Ile	Phe
			35				40					45			

Cys	Arg	Ile	Ser	Ala	Leu	Lys	Val	Gly	Ala	Asp	Leu	Ser	His	Val	Phe
	50					55					60				

Cys	Ala	Ser	Ala	Ala	Ala	Pro	Val	Ile	Lys	Ala	Tyr	Ser	Pro	Glu	Leu
65					70					75				80	

Ile	Val	His	Pro	Val	Leu	Asp	Ser	Pro	Asn	Ala	Val	His	Glu	Val	Glu
				85					90					95	

Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val	Val	Gly	Pro	Gly	Leu	Gly
		100						105					110		

Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln	Gly	Ile	Leu	Glu	Val	Ser
		115					120					125			

Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp	Ala	Asp	Gly	Leu	Trp	Xaa
	130					135					140				

Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly	Tyr	Arg	Lys	Ala	Val	Leu
145					150					155					160

Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu	Tyr	Asp	Ala	Val	Leu	Arg
				165					170					175	

## 4310

Gly Pro Met Asp Ser Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser  
 180 185 190

Gln Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile  
 195 200 205

Leu Ser Asn Gly Gln Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser  
 210 215 220

Ala Gly Val Glu Gly Lys Gly Xaa Ser Cys Arg Ala Pro Trp Ala Ser  
 225 230 235 240

Trp Tyr Thr Gly

<210> 4735

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4735

Arg Asn Lys Ser Gln Met Gln Arg Tyr Asn Phe His Tyr Leu Lys Tyr  
 1 5 10 15

Ile Val His Phe Tyr Arg Thr Cys Asp Tyr Ser Arg Met Ile Arg Met  
 20 25 30

Val Leu Ala Tyr Gly Glu Leu Leu Leu Leu Thr Val Ser Ala Glu Ile  
 35 40 45

Leu Phe Gln Trp Thr Asn Ile Val Ala Trp Gln Gln Met Pro Thr Phe  
 50 55 60

Cys Gly Ile Ala Ala Asn Leu Gln Glu Thr Leu Val Gly Phe Ser Phe  
 65 70 75 80

Cys Phe Leu Cys Phe Phe Pro Leu Leu Leu Asn Gln Gln Gly Trp Lys  
 85 90 95

Glu Gly Arg Glu Val Met Asn Tyr Ser Phe Gln  
 100 105

<210> 4736

<211> 78

<212> PRT

<213> Homo sapiens

## 4311

&lt;400&gt; 4736

Val Val Ser Cys Gly Val Phe Phe Lys Lys Phe Asp Leu Ala Phe Ile  
 1 5 10 15

Phe Ser Ile Leu Phe Pro Ile Lys Ser Met Gln Ile Ile Cys Pro Lys  
 20 25 30

Leu Ser Ser Ser Ser Asp Ser Ala Phe Val Leu Cys Gln Ser His Phe  
 35 40 45

His Leu Leu Pro Trp Phe His Arg Ser Phe Val Ser Trp Ala Ser Arg  
 50 55 60

Lys Ile Lys Leu Tyr Leu Phe Cys Ile Cys Glu Met Phe Lys  
 65 70 75

&lt;210&gt; 4737

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (164)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4737

Gly His Ser Glu Trp Val Ser Cys Val Arg Phe Ser Pro Asn Ser Ser  
 1 5 10 15

Asn Pro Ile Ile Val Ser Cys Gly Trp Asp Lys Leu Val Lys Val Trp  
 20 25 30

Asn Leu Ala Asn Cys Lys Leu Lys Thr Asn His Ile Gly His Thr Gly  
 35 40 45

Tyr Leu Asn Thr Val Thr Val Ser Pro Asp Gly Ser Leu Cys Ala Ser  
 50 55 60

Gly Gly Lys Asp Gly Gln Ala Met Leu Trp Asp Leu Asn Glu Gly Lys  
 65 70 75 80

His Leu Tyr Thr Leu Asp Gly Gly Asp Ile Ile Asn Ala Leu Cys Phe  
 85 90 95

Ser Pro Asn Arg Tyr Trp Leu Cys Ala Ala Thr Gly Pro Ser Ile Lys  
 100 105 110

## 4312

Ile Trp Asp Leu Glu Gly Lys Ile Ile Val Asp Glu Leu Lys Gln Glu  
 115 120 125

Val Ile Ser Thr Ser Ser Lys Ala Glu Pro Pro Gln Cys Thr Ser Leu  
 130 135 140

Ala Trp Ser Ala Asp Gly Gln Thr Leu Phe Ala Gly Tyr Thr Asp Asn  
 145 150 155 160

Leu Val Arg Xaa Gly Ser Asp His Trp Thr Arg  
 165 170

<210> 4738

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4738

Thr Pro Arg Asp Leu Val Cys Leu Gly Leu Ser Ser Ile Val Gly Val  
 1 5 10 15

Trp Tyr Leu Leu Arg Lys His Trp Ile Ala Asn Asn Leu Phe Gly Leu  
 20 25 30

Ala Phe Ser Leu Asn Gly Val Glu Leu Leu His Leu Asn Asn Val Ser  
 35 40 45

Thr Gly Cys Ile Leu Leu Gly Gly Leu Phe Ile Tyr Asp Val Phe Trp  
 50 55 60

Val Phe Gly Thr Asn Val Met Val Thr Val Ala Lys Ser Phe Glu Ala  
 65 70 75 80

Pro Ile Lys Leu Val Phe Pro Gln Asp Leu Leu Glu Lys Gly Leu Glu  
 85 90 95

Ala Asn Asn Phe Ala Met Leu Gly Leu Gly Asp Val Val Ile Pro Gly  
 100 105 110

Ile Phe Ile Ala Leu Leu Leu Arg Phe Asp Ile Ser Leu Lys Lys Asn  
 115 120 125

Thr His Thr Tyr Phe Tyr Thr Ser Phe Ala Ala Tyr Ile Phe Gly Leu  
 130 135 140

Gly Leu Thr Ile Phe Ile Met His Ile Phe Lys His Ala Gln Leu  
 145 150 155



4313

&lt;210&gt; 4739

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4739

Tyr Lys Tyr Arg Glu Glu Val Ser Met Asn Leu Xaa Ile Val Leu Ser  
 1 5 10 15

Asn Pro Leu Glu Cys Gln Ser Leu Lys Asp Phe Ala Leu Leu His Gln  
 20 25 30

Ile Thr Ser Phe Ser Gln Ile Pro Ile Ser Val Ile Thr Gly Ala Asn  
 35 40 45

Leu Lys Val Leu Tyr Ser Phe Thr Thr Leu Gln Ile Cys Asn Ala Ala  
 50 55 60

Tyr Asn Ala Glu Glu His  
 65 70

&lt;210&gt; 4740

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4740

Thr Lys Xaa Lys Ser Gly Glu Leu Ala Val Thr Ser Thr Gly Gly His  
 1 5 10 15

Gly Arg Glu Gly Ser Leu Leu Glu Gly Leu Pro Trp Arg Leu Glu Trp  
 20 25 30

Gly Leu Pro Gly Arg Pro Ala Phe His Pro Cys Leu Pro His Pro Cys  
 35 40 45

His Arg Leu Cys Thr Pro Leu Asp Gly Gly Ser Lys Pro Gly Thr Val  
 50 55 60

## 4314

Pro Val Leu Val Arg Val Ile Ile Met Ile Asn Ile Asn Tyr Asp Ala  
 65 70 75 80

Lys Asn Cys Trp Ala Asn Phe Glu Asp Leu Asn Leu Leu Gln  
 85 90

<210> 4741

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4741

Pro Ser Ser Leu Arg Lys Glu Ser Glu Ser Arg Glu Val Asp Ala Ser  
 1 5 10 15

Tyr Leu Leu Glu Arg Pro Ser Ser Val Ser Val Val Val Thr Ala Pro  
 20 25 30

Ser Ala Met Ser Phe Ser Ala Thr Ile Leu Phe Ser Pro Pro Ser Gly  
 35 40 45

Ser Glu Ala Arg Cys Cys Cys Cys Ala Cys Lys Ser Glu Thr Asn Gly  
 50 55 60

Gly Asn Thr Gly Ser Gln Gly Gly Asn Pro Pro Pro Ser Thr Pro Ile  
 65 70 75 80

Thr Val Thr Gly His Gly Leu Ala Val Gln Ser Ser Glu Gln Leu Leu  
 85 90 95

His Val Ile Tyr Gln Arg Val Asp Lys Ala Val Gly Leu Ala Glu Ala  
 100 105 110

Ala Leu Gly Leu Ala Arg Ala Asn Asn Glu Leu Leu Lys Arg Leu Gln  
 115 120 125

<210> 4742

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

## 4315

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4742

Arg Lys Phe Ser Leu Thr His Ser Tyr Gln Ala Ser Ile Ile Gln Ile  
 1 5 10 15

Pro Lys Pro Ile Ile Asp Thr Thr Thr Thr Thr Thr Thr Thr His  
 20 25 30

His Ala Asn Val Phe Gly Lys His Cys Ala Lys Ile Leu Asn Lys Ile  
 35 40 45

Leu Ala Ser Gln Ile Gln Gln His Ile Lys Lys Phe Ile Xaa Asn Asn  
 50 55 60

Gly Val Gly Phe Val Pro Arg Met Gln Gly  
 65 70

&lt;210&gt; 4743

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (145)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4743

Ser Trp Ser Arg Glu Arg Ala Pro Ala Pro Leu Trp Glu Asp Arg Glu  
 1 5 10 15

Met Pro Val Leu Lys Gln Leu Gly Pro Ala Gln Pro Lys Lys Arg Pro  
 20 25 30

Asp Arg Gly Ala Leu Ser Ile Ser Ala Pro Leu Gly Asp Phe Arg His  
 35 40 45

## 4316

Thr Leu His Val Gly Arg Gly Gly Asp Ala Phe Gly Asp Thr Ser Phe  
 50 55 60  
 Leu Ser Arg His Gly Gly Gly Pro Pro Pro Ser Pro Gly Arg Pro Pro  
 65 70 75 80  
 Arg Gly Pro Arg Xaa Pro Arg Arg Arg Arg Arg Pro Gln Ser Ala Ala  
 85 90 95  
 Pro Arg Leu Arg Pro Ala Val Pro Ser Pro Gly Ser Gly Ala Ser Cys  
 100 105 110  
 Trp Thr Arg Cys Trp Arg Met Asp Ala Ala Arg Arg Ser Gly Cys Ala  
 115 120 125  
 Ser His Ala Asn Pro Pro Gly Xaa Ala Pro Ala Val Arg His Ala Thr  
 130 135 140  
 Xaa Tyr Thr Met Ala  
 145

&lt;210&gt; 4744

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4744

Arg Arg Pro Arg Ser Arg Leu Arg Val Thr Ser Val Ser Asp Gln Asn  
 1 5 10 15  
 Asp Arg Val Val Glu Cys Gln Leu Gln Thr His Asn Ser Lys Met Val  
 20 25 30  
 Thr Phe Arg Phe Asp Leu Asp Gly Asp Ser Pro Glu Glu Ile Ala Ala  
 35 40 45  
 Ala Met Val Tyr Asn Glu Phe Ile Leu Pro Ser Glu Arg Asp Gly Phe  
 50 55 60

## 4317

Leu Arg Arg Ile Arg Glu Ile Ile Gln Arg Val Glu Thr Leu Leu Lys  
 65 70 75 80  
 Arg Asp Thr Gly Pro Met Glu Ala Ala Glu Asp Thr Leu Ser Pro Gln  
 85 90 95  
 Glu Glu Pro Ala Pro Leu Pro Ala Leu Pro Val Pro Leu Pro Asp Pro  
 100 105 110  
 Ser Asn Glu Glu Leu Gln Ser Ser Thr Ser Leu Glu His Arg Ser Trp  
 115 120 125  
 Thr Ala Phe Ser Thr Ser Phe Ile Leu Ser Ser Trp Glu Leu Leu Cys  
 130 135 140  
 Leu Leu Gly Asn Pro Phe Ser Pro Gly Thr Pro Ile Phe Pro Arg Val  
 145 150 155 160  
 Pro Xaa Phe Pro Ile Xaa Phe  
 165

&lt;210&gt; 4745

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (247)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4745

Ala Gln Asp Gln Trp Ser Glu Leu Phe Met Asp Ala Leu Gly Pro Phe  
 1 5 10 15  
 Asn Phe Val Leu Val Ser Ser Val Arg Met Gln Gly Val Ile Leu Leu  
 20 25 30  
 Leu Phe Ala Lys Tyr Tyr His Leu Pro Phe Leu Arg Asp Val Gln Thr  
 35 40 45  
 Asp Cys Thr Arg Thr Gly Leu Gly Gly Tyr Trp Gly Asn Lys Gly Gly  
 50 55 60  
 Val Ser Val Arg Leu Ala Ala Phe Gly His Met Leu Cys Phe Leu Asn  
 65 70 75 80  
 Cys His Leu Pro Ala His Met Asp Lys Ala Glu Gln Arg Lys Asp Asn  
 85 90 95

4318

Phe Gln Thr Ile Leu Ser Leu Gln Gln Phe Gln Gly Pro Gly Ala Gln  
 100 105 110  
 Gly Ile Leu Asp His Asp Leu Val Phe Trp Phe Gly Asp Leu Asn Phe  
 115 120 125  
 Arg Ile Glu Ser Tyr Asp Leu His Phe Val Lys Phe Ala Ile Asp Ser  
 130 135 140  
 Asp Gln Leu His Gln Leu Trp Glu Lys Asp Gln Leu Asn Met Ala Lys  
 145 150 155 160  
 Asn Thr Trp Pro Ile Leu Lys Gly Phe Gln Glu Gly Pro Leu Asn Phe  
 165 170 175  
 Ala Pro Thr Phe Lys Phe Asp Val Gly Thr Asn Lys Tyr Asp Thr Ser  
 180 185 190  
 Ala Lys Lys Arg Lys Pro Ala Trp Thr Asp Arg Ile Leu Trp Lys Val  
 195 200 205  
 Lys Ala Pro Gly Gly Gly Pro Ser Pro Ser Gly Arg Lys Ser His Arg  
 210 215 220  
 Leu Gln Val Thr Gln His Ser Tyr Arg Ser His Met Glu Tyr Thr Val  
 225 230 235 240  
 Ser Asp His Lys Pro Val Xaa Ala Gln Phe Leu Leu Gln Phe Ala Phe  
 245 250 255  
 Gln Gly Arg His Ala Thr Gly Ala Ala Gly Gly Gly Gln Met Ser Gly  
 260 265 270  
 Cys Gly Pro Ser Arg Arg Trp  
 275

&lt;210&gt; 4746

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4746

Pro Met Ala Leu Ala Lys Thr Ala Ile Leu Val Arg Leu Ser Tyr Phe

## 4319

1	5	10	15
Leu Phe Ile Asp Thr Ser Thr Xaa Thr Ala Phe Leu Ser Ser Val Asp	20	25	30
Leu His Thr His Cys Ser Tyr Gln Leu Met Leu Pro Glu Ala Ile Ala	35	40	45
Ile Val Cys Ser Pro Lys His Lys Asp Thr Gly Ile Phe Arg Leu Thr	50	55	60
Asn Ala Gly Met Leu Glu Val Ser Ala Cys Lys Lys Lys Gly Phe His	65	70	75
Pro His Thr Lys Glu Pro Arg Leu Phe Ser Ile Cys Lys His Val Leu	85	90	95
Val Lys Asp Ile Lys Ile Ile Val Leu Asp Leu Arg	100	105	

&lt;210&gt; 4747

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4747

Lys Glu Met Val Ile Leu Trp Thr Met Glu Thr Ser Ser Glu Tyr Ala	1	5	10	15
Asp Phe Pro Leu Leu Thr Leu Pro Ser Leu Trp Leu Leu Leu Pro Asp	20	25	30	
Lys Gly Gln Gly His Leu Lys Thr Leu Pro Pro Val Gly Phe Gly Val	35	40	45	
Thr Gly Ala Ser Ala Cys Ser His Ile Phe Gln Lys Gly Ser Ala Leu	50	55	60	
Arg Thr Ser Leu Tyr Leu Gly Phe Leu Ile Pro Leu Ala Val Leu Thr	65	70	75	80
Ser Arg Glu Thr				

&lt;210&gt; 4748

&lt;211&gt; 65

&lt;212&gt; PRT

## 4320

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4748

Met	Phe	Lys	Leu	Tyr	Ser	Ser	Leu	Ala	Arg	Met	Xaa	Asn	Thr	Cys	Ala
1					5				10					15	

Leu	Lys	Ala	Asn	Arg	Glu	Arg	Val	His	Asn	Ile	Leu	Gln	Xaa	Leu	Lys
			20					25					30		

His	Asn	Leu	Xaa	His	His	Leu	Pro	Leu	Ala	Asn	Ile	Pro	Ser	Gln	Leu
	35						40					45			

Phe	Ser	Arg	Glu	Glu	Pro	Phe	Lys	Leu	Trp	Ser	Ser	Ile	Tyr	Tyr	Phe
	50						55					60			

His

65

<210> 4749

<211> 27

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4749



## 4321

Arg Asn Ala Lys Val Gly Xaa Gly Val Val Ala His Ala Cys Gly Pro  
 1 5 10 15

Gly Cys Leu Gly Gly Trp Xaa Gly Arg Ile Ala  
 20 25

<210> 4750

<211> 118

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4750

Ser Ser Tyr Ser Lys Ile Ser Leu Arg Asn Ser Ser Lys Val Thr Glu  
 1 5 10 15

Ser Ala Ser Val Xaa Gln Ser Gln Asp Val Ser Gly Ser Glu Asp Thr  
 20 25 30

Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val Phe Asp Asn  
 35 40 45

Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn Asp Pro Lys  
 50 55 60

Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser Ser Gln Ser  
 65 70 75 80

Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu Glu Ser Gln  
 85 90 95

Ile Asn Glu His Leu Asp Trp Cys Leu Glu Gly Asp Ser Ile Lys Val  
 100 105 110

Xaa Ser Glu Glu Ser Leu  
 115

<210> 4751

4322

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4751

Pro	Thr	Arg	Pro	Pro	Gln	Ala	Asn	Arg	Gly	Val	Val	Arg	Trp	Glu	Tyr
1				5					10					15	

Phe	Arg	Leu	Arg	Pro	Leu	Arg	Phe	Arg	Ala	Pro	Ala	Leu	Arg	Leu	Gln
		20						25					30		

Lys	Ser	Gln	Ser	Ser	Asp	Leu	Leu	Glu	Arg	Glu	Arg	Glu	Ser	Val	Leu
		35					40					45			

Arg	Arg	Glu	Gln	Glu	Val	Xaa	Glu	Glu	Arg	Arg	Asn	Ala	Leu	Phe	Pro
		50					55				60				

Glu	Val	Phe	Ser	Pro	Thr	Pro	Asp	Glu	Asn	Ser	Asp	Gln	Asn	Ser	Arg
65					70					75					80

Ser	Ser	Ser	Gln	Ala	Ser	Gly	Ile	Thr	Gly	Ser	Tyr	Ser	Val	Ser	Glu
			85						90					95	

Ser	Pro	Phe	Phe	Ser	Pro	Ile	His	Leu	His	Ser	Asn	Val	Ala	Trp	Thr
			100					105					110		

Val	Glu	Asp	Xaa	Val	Asp	Ser	Ala	Pro	Pro	Gly	Gln	Arg	Lys	Lys	Glu
		115					120					125			

Gln	Trp	Tyr	Ala	Gly	Ile	Asn	Pro	Ser	Asp	Gly	Ile	Asn	Ser	Glu	Val
	130					135					140				

Leu	Glu	Ala	Ile	Arg	Val	Thr	Arg	His	Lys	Asn	Ala	Met	Ala	Glu	Arg
145					150					155					160

Trp	Glu	Ser	Arg	Ile	Tyr	Ala	Ser	Glu	Glu	Asp	Asp
				165					170		

&lt;210&gt; 4752

## 4323

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4752

Glu	Trp	Glu	Cys	Trp	Leu	Leu	Leu	Gln	Tyr	Trp	Ser	Leu	Tyr	Thr	Val
1				5					10					15	

Leu	His	Thr	Arg	Phe	Phe	Ser	Gly	Tyr	Met	Ser	Phe	Leu	Ser	Lys	Leu
			20					25					30		

Cys	Gly	Ser	His	Glu	Glu	Thr	Ser	Asn	Gln	Gly	Lys	Gly	Glu	Gly	Leu
		35					40					45			

Arg	His	Lys	Thr	Tyr	Leu	Tyr	Lys	Ile	Ser	Phe	Lys	Asn	Ser	Asn	Leu
	50					55					60				

Gly	His	Val	Lys	Phe	Phe	Tyr	Ile	Phe	Ser	Cys	Leu	Asn	Leu	Ser	Ser
65					70					75					80

Phe	Phe	Met	Leu	Cys	Ser	Ala	Arg	Lys	Cys	Gly	Glu	Met	Asp	Xaa	Gly
				85					90					95	

Gly	Cys	Gly	Xaa	Asp	Arg	Trp	Leu	Gly	Ser	Thr	Cys	Leu	Cys	Leu	Phe
			100					105					110		

Pro	Phe	Met	Cys	Ser	Cys	Val
						115

&lt;210&gt; 4753

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4324

&lt;400&gt; 4753

Xaa Gly Arg Ala Trp Val Met Ala Ala Pro Gly Ala Leu Leu Val Met  
 1 5 10 15

Gly Val Ser Gly Ser Gly Lys Ser Thr Val Gly Ala Leu Leu Ala Ser  
 20 25 30

Glu Leu Gly Trp Lys Phe Tyr Asp Ala Asp Asp Tyr His Pro Glu Glu  
 35 40 45

Asn Arg Arg Lys Met Gly Lys Gly Ile Pro Leu Asn Asp Gln Asp Arg  
 50 55 60

Ile Pro Trp Leu Cys Asn Leu His Asp Ile Leu Leu Arg Asp Val Ala  
 65 70 75 80

Ser Gly Gln Arg Val Val Leu Ala Cys Ser Ala Leu Lys Lys Thr Tyr  
 85 90 95

Arg Asp Ile Leu Thr Gln Gly Lys Asp Gly Val Ala Leu Lys Cys Glu  
 100 105 110

Glu Ser Gly Lys Glu Ala Lys Gln Ala Glu Met Gln Leu Leu Val Val  
 115 120 125

His Leu Ser Gly Ser Phe Glu Val Ile Ser Gly Arg Leu Leu Lys Arg  
 130 135 140

Glu Gly His Phe Met Pro Pro Glu Leu Leu Gln Ser Gln Phe Glu Thr  
 145 150 155 160

Leu Glu Pro Pro Ala Ala Pro Glu Asn Phe Ile Gln Ile Ser Val Asp  
 165 170 175

Lys Asn Val Ser Glu Ile Ile Ala Thr Ile Met Glu Thr Leu Lys Met  
 180 185 190

Lys

&lt;210&gt; 4754

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (182)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4325

&lt;400&gt; 4754

Gln Asp His Gly Ala Trp Leu Arg Gly Gly Asp Val Trp Leu Asp Ser  
 1 5 10 15

Cys Arg Phe Ala Asp Asn Gly Ile Gly Leu Thr Leu Ala Ser Gly Gly  
 20 25 30

Thr Phe Pro Tyr Asp Asp Gly Ser Lys Gln Glu Ile Lys Asn Ser Leu  
 35 40 45

Phe Val Gly Glu Ser Gly Asn Val Gly Thr Glu Met Met Asp Asn Arg  
 50 55 60

Ile Trp Gly Pro Gly Gly Leu Asp His Ser Gly Arg Thr Leu Pro Ile  
 65 70 75 80

Gly Gln Asn Phe Pro Ile Arg Gly Ile Gln Leu Tyr Asp Gly Pro Ile  
 85 90 95

Asn Ile Gln Asn Cys Thr Phe Arg Lys Phe Val Ala Leu Glu Gly Arg  
 100 105 110

His Thr Ser Ala Leu Ala Phe Arg Leu Asn Asn Ala Trp Gln Ser Cys  
 115 120 125

Pro His Asn Asn Val Thr Gly Ile Ala Phe Glu Asp Val Pro Ile Thr  
 130 135 140

Ser Arg Val Phe Phe Gly Glu Pro Gly Pro Trp Phe Asn Gln Leu Asp  
 145 150 155 160

Met Asp Gly Asp Lys Thr Ser Val Phe His Asp Val Asp Gly Ser Val  
 165 170 175

Ser Glu Tyr Pro Gly Xaa Tyr Leu Arg Arg Met Thr Thr Gly Trp Ser  
 180 185 190

Gly Thr

&lt;210&gt; 4755

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4755

Ile Arg His Glu Lys Asp Arg Gly Pro Arg Arg Ser Val Ser Phe Pro  
 1 5 10 15

4326

Arg Ala Leu Ser Gly Asn Met Ala Gly Val Glu Glu Val Ala Ala Ser  
 20 25 30  
 Gly Ser His Leu Asn Gly Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly  
 35 40 45  
 Ala Ala Ser Thr Ala Glu Glu Ala Ala Lys Lys Lys Arg Arg Lys Lys  
 50 55 60  
 Lys Lys Ser Lys Gly Pro Ser Ala Ala Gly Glu Gln Glu Pro Asp Lys  
 65 70 75 80  
 Glu Ser Gly Ala Ser Val Asp Glu Val Ala Arg Gln Leu Glu Arg Ser  
 85 90 95  
 Ala Leu Glu Asp Lys Glu Arg Asp Glu Asp Asp Glu Asp Gly Asp Gly  
 100 105 110  
 Asp Gly Asp Gly Ala Thr Gly Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 115 120 125  
 Arg Gly Pro Lys Val Gln Thr Asp Pro Pro Ser Val Pro Ile Cys Asp  
 130 135 140  
 Leu Tyr Pro Asn Gly Val Phe Pro Lys Gly Gln Glu Cys Glu Tyr Pro  
 145 150 155 160  
 Pro Thr Gln Asp Gly Arg Thr Ala Ala Trp Arg Thr Thr Ser Glu Glu  
 165 170 175  
 Lys Lys Ala Leu Asp Gln Ala Ser Glu Glu Ile Trp Asn Asp Phe Arg  
 180 185 190  
 Glu Ala Ala Glu Ala His Arg Gln Val Arg Lys Tyr Val Met Ser Trp  
 195 200 205  
 Ile Lys Pro Gly Met Thr Met Ile Glu Ile Cys Glu Lys Leu Glu Asp  
 210 215 220  
 Cys Ser Arg Lys Leu Ile Lys Glu Asn Gly Leu Asn Ala Gly Leu Ala  
 225 230 235 240  
 Phe Pro Thr Gly Cys Ser Leu Asn Asn Cys Ala Ala His Tyr Thr Pro  
 245 250 255  
 Asn Ala Gly Asp Thr Thr Val Leu Gln Tyr Asp Asp Ile Cys Lys Ile  
 260 265 270  
 Asp Phe Gly Thr His Ile Ser Gly Arg Ile Ile Asp Cys Ala Phe Thr  
 275 280 285

4327

Val Thr Phe Asn Pro Lys Tyr Asp Thr Leu Leu Lys Ala Val Lys Asp  
 290 295 300  
 Ala Thr Asn Thr Gly Ile Lys Cys Ala Gly Ile Asp Val Arg Leu Cys  
 305 310 315 320  
 Asp Val Gly Glu Ala Ile Gln Glu Val Met Glu Ser Tyr Glu Val Glu  
 325 330 335  
 Ile Asp Gly Lys Thr Tyr Gln Val Lys Pro Ile Arg Asn Leu Asn Gly  
 340 345 350  
 His Ser Ile Gly Gln Tyr Arg Ile His Ala Gly Lys Thr Val Pro Ile  
 355 360 365  
 Val Lys Gly Gly Glu Ala Thr Arg Met Glu Glu Gly Glu Val Tyr Ala  
 370 375 380  
 Ile Glu Thr Phe Gly Ser Thr Gly Lys Gly Val Val His Asp Asp Met  
 385 390 395 400  
 Glu Cys Ser His Tyr Met Lys Asn Phe Asp Val Gly His Val Pro Ile  
 405 410 415  
 Arg Leu Pro Arg Thr Lys His Leu Leu Asn Val Ile Asn Glu Asn Phe  
 420 425 430  
 Gly Thr Leu Ala Phe Cys Arg Arg Trp Leu Asp Arg Leu Gly Glu Ser  
 435 440 445  
 Lys Tyr Leu Met Ala Leu Lys Asn Leu Cys Asp Leu Gly Ile Val Asp  
 450 455 460  
 Pro Tyr Pro Pro Leu Cys Asp Ile Lys Gly Ser Tyr Thr Ala Gln Phe  
 465 470 475 480  
 Glu His Thr Ile Leu Leu Arg Pro Thr Cys Lys Glu Val Val Ser Arg  
 485 490 495  
 Gly Asp Asp Tyr  
 500

&lt;210&gt; 4756

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4756

## 4328

Ala Leu Ala Ile Ala Glu Lys Ser Gln Glu Phe Leu Glu Ala Asp Asn  
 1 5 10 15  
 Arg Gln Leu Pro Asn Gly Val Tyr Thr Thr Ala Glu Gln Arg Pro Asn  
 20 25 30  
 Ala Tyr Ile Pro Glu Ala Asp Ala Thr Leu Pro Leu Pro Lys Pro Tyr  
 35 40 45  
 Gly Ala Leu Ala Pro Phe Lys Pro Ser Glu Pro Gly Ala Asn Met Arg  
 50 55 60  
 His Ile Arg Lys Pro Val Ile Lys Pro Val Glu Ile  
 65 70 75

&lt;210&gt; 4757

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4757

Met Ala Tyr Thr Ile Pro Val Ile Ile Val Gly Gly Cys Trp Phe Ala  
 1 5 10 15

Trp Arg His Gln Ser Ser Asp Glu Xaa Ile Asp Tyr Phe Ala Val Ser  
 20 25 30

Leu Arg Ile Ile Gly Val Leu Ala Leu Ile Leu Thr Ser Cys Gly Leu  
 35 40 45



4329

Ala Ala Ile Asn Ala Asp Xaa Ile Trp Tyr Phe Ala Ser Gly Gly Val  
 50 55 60

Xaa Gly Ser Leu Leu Ser Thr Xaa Leu Gln Pro Leu Leu His Ser Ser  
 65 70 75 80

Gly Gly Thr Ile Ala Leu Leu Cys Val Trp Ala Ala Gly Leu Thr Leu  
 85 90 95

Phe Thr Gly Trp Ser Trp Val Thr Leu Leu Lys Asn Ser Ala Ala Gly  
 100 105 110

Phe

<210> 4758  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 4758

Thr Ile Cys Val Val Arg Gly Ala Thr Ala Ile Ser Ala Glu Leu Gly  
 1 5 10 15

Gly Ile Ser Thr Thr Phe Leu Ser Ala Glu Ala Phe Pro Pro Thr Leu  
 20 25 30

Met Leu Phe Asn Ser Val Leu Arg Gln Pro Gln Leu Gly Val Leu Arg  
 35 40 45

Asn Gly Trp Ser Ser Gln Tyr Pro Leu Gln Ser Leu Leu Thr Gly Tyr  
 50 55 60

Gln Cys Ser Gly Asn Asp Glu His Thr Ser Tyr Gly Glu Thr Gly Val  
 65 70 75 80

Pro Val Pro Pro Phe Gly Cys Thr Phe Ser Ser Ala Pro Asn Met Glu  
 85 90 95

His Val Leu Ala Val Ala Asn Glu Glu Gly Phe Cys Ser Ile Val  
 100 105 110

<210> 4759  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

## 4330

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4759

Ala	Gly	Glu	Arg	Asp	Gln	Gly	Arg	Arg	Arg	Gly	Glu	Ser	Arg	Glu	Gly
1				5					10					15	

Trp	Ser	Phe	Gly	Glu	Ser	Leu	Trp	Lys	Met	Ala	Pro	Val	Val	Thr	Gly
			20					25						30	

Lys	Phe	Gly	Glu	Arg	Pro	Pro	Pro	Lys	Arg	Leu	Thr	Arg	Glu	Ala	Met
		35					40					45			

Arg	Asn	Tyr	Leu	Lys	Glu	Arg	Gly	Asp	Gln	Thr	Val	Leu	Ile	Leu	His
	50					55					60				

Ala	Lys	Val	Ala	Gln	Lys	Ser	Tyr	Gly	Asn	Glu	Lys	Arg	Phe	Phe	Cys
65					70					75					80

Pro	Pro	Pro	Cys	Val	Tyr	Leu	Met	Gly	Ser	Gly	Trp	Lys	Lys	Lys	Lys
			85						90					95	

Glu	Gln	Met	Glu	Arg	Asp	Gly	Cys	Ser	Glu	Gln	Glu	Ser	Gln	Pro	Cys
		100					105						110		

Ala	Phe	Ile	Gly	Xaa	Gly	Asn	Ser	Asp	Gln	Glu	Met	Gln	Gln	Leu	Asn
		115					120					125			

Leu	Gly	Arg	Lys	Xaa	Leu	Leu	His	Ser	Gln	Thr	Leu	Tyr	Ile	Ser	Xaa
	130					135					140				

Ser	Ala	Ser	Glu	Asp	Phe	His	Val	Val	Cys	Lys	Val	Phe
145					150					155		

&lt;210&gt; 4760

&lt;211&gt; 60

4331

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4760

Leu Arg Met Cys Glu Lys Leu Thr Glu Pro Asp Ala Cys Cys Tyr Phe  
1 5 10 15

Thr Ala Met Ser Leu Phe Leu Ser Thr Leu Lys Ile Phe Phe Leu Phe  
20 25 30

Asn Val Val Tyr Phe Gly Leu Arg Asn Asn Cys Ser Val Glu Asn Asn  
35 40 45

Pro Leu Ser Glu Lys Lys Val Ala Thr Thr Ser Phe  
50 55 60

&lt;210&gt; 4761

&lt;211&gt; 460

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (303)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (305)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (436)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (442)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (444)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (447)

4332

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (448)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4761

Leu Asp Ala Pro Leu Asp Thr Phe Asn Gly Asn Arg Phe Ala Leu Arg  
 1 5 10 15

Leu Thr Ala Ile Phe Leu Gln Pro Leu Gly Lys Leu Val Val Arg Ala  
 20 25 30

Leu His Gly Pro Trp Asn Thr Asp Ser Pro Asp Asn Leu Glu Glu Val  
 35 40 45

Lys Phe Leu Leu His Met Trp Val Ala Leu Phe Tyr Ser Asn Gln Asn  
 50 55 60

Lys Ile Ile Arg Ser Ser Arg Lys Val Val Glu His Ser Asn Pro Ala  
 65 70 75 80

Lys Tyr Val Ser Ile Asn Ser Thr Leu Glu Ser Cys Glu Leu Arg Glu  
 85 90 95

Ile Glu Glu Ser Leu Gly Leu Glu Lys Cys Ser Ala Asp Ser Leu Leu  
 100 105 110

Glu Thr Asn Glu Ile Ser Arg Ala His Ala Ala Glu Val Ser Phe Arg  
 115 120 125

Asp Pro Asn Cys Leu Leu Pro Phe Ile Lys Thr Pro Leu Thr Gln Gly  
 130 135 140

Leu Glu Leu Cys Val Gln Asn Glu Gln Lys Lys Thr Phe Ala Arg Glu  
 145 150 155 160

Cys Asp Pro Asp Thr Gln Glu Asp Gln Asn Phe Ile Cys Ser Tyr Asn  
 165 170 175

Asn Glu Val Thr Gly Glu Glu Ala Lys Gln Glu Ser Leu Glu Thr Ser  
 180 185 190

Asn Leu Val Leu Ser Gly Ile Gly Ser Thr Gln Thr Asn Gly Pro Ser  
 195 200 205

Val Pro Ser Glu Glu Glu Ile Val Gln Pro Leu Asp Ser Thr Arg Val  
 210 215 220

Ala Ser Tyr Ser Gly Thr Val Thr Gln Ala Thr Phe Thr Arg Thr Tyr

## 4333

225		230		235		240
Asp Gly Pro Gly Ser Gln Pro Val Ile Cys Gln Ser Ser Val Tyr Gly						
	245		250		255	
Thr Leu Glu Asn Lys Val Asp Ile Leu Asp Ala Ala Val Gln Thr Lys						
	260		265		270	
Thr Gly Thr Leu Gln Asp Leu Ile Gln His Gly Ser Pro Ile Asn Asn						
	275		280		285	
Glu Cys His Pro Ser Leu Glu Arg Lys Asp Asp Asn Met Gly Xaa Ala						
	290		295		300	
Xaa Ile Asn Pro Glu Pro Ile Thr Leu Thr Phe Glu Lys Asn Ala His						
305		310		315		320
Val Pro Ile Gln Thr Glu Gly Val Asn Thr Ala Asp Glu Pro Thr Thr						
	325		330		335	
Phe Lys Lys Glu Leu Ile Lys Gln Val Ser Pro Ala Ala Ser Leu Arg						
	340		345		350	
His Pro Val Ser Thr Ser Glu Asn Ala Arg Thr Gln Gly Leu Arg Asp						
	355		360		365	
Ile Pro Ser Leu Val Val Ala Gly Gln Lys Gly Thr Lys Tyr Leu Cys						
	370		375		380	
Ala Ser Ser Val Gly Gly Glu Thr Leu Asp Lys Ala Val Cys Ser Leu						
385		390		395		400
Gln Lys Glu Thr Pro Leu Pro Val Ser Leu Pro Ser Asp Lys Thr Met						
	405		410		415	
Val Met Glu Ala Leu Ser Leu Ala Lys Ser Ser Ser His Leu Ser Pro						
	420		425		430	
Ser Glu Glu Xaa Arg Cys Thr Gln Asp Xaa Leu Xaa Gln Thr Xaa Xaa						
	435		440		445	
Leu Leu Gly Leu Ser Leu Glu Arg Leu Leu Arg Thr						
	450		455		460	

&lt;210&gt; 4762

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4334

&lt;400&gt; 4762

Ala Ser Asp Pro Thr Leu Val Leu Ala Pro Gln Gln Trp Leu Pro Leu  
 1 5 10 15

Thr Leu Ser Arg Arg Trp Leu Gly Gly Gly Tyr Leu Trp Val Ala Gly  
 20 25 30

Lys Gly Val Gly Arg Phe Arg Met Val Gly Gly Thr Glu Val Pro Glu  
 35 40 45

Val Lys Arg Pro Leu Val Leu Thr Gly Leu Thr Arg Ala Trp Thr Leu  
 50 55 60

Gly Ala Val Leu Cys Glu Leu Ala  
 65 70

&lt;210&gt; 4763

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4763

Trp Glu Pro Thr Phe Phe Gly Phe Ser Gly Glu His Asn Ser Lys His  
 1 5 10 15

Pro Leu Gly Ser His Met Tyr Arg Asn Gly Thr Gln Leu Gly His Ser  
 20 25 30

His Gly Leu Pro Arg Pro Gly Met Cys Gly Ala Lys Trp Gly Gln Gly  
 35 40 45

Pro Asp Pro Arg Gly Glu Gly Gly Pro Gln Thr Pro Arg Asp Val Ser  
 50 55 60

Ile Pro Arg Pro Ala Phe Trp Arg His Leu Pro Gly Ala Val Leu Ser  
 65 70 75 80

Gln Gln Ala Trp Gly Glu Ser Leu Val Tyr Ala Gly Asn Arg Val Gln  
 85 90 95

Gly Pro Ser Val Pro Pro Ser Ala Leu Thr Trp Ala Met His Pro Leu  
 100 105 110

Ser Pro Lys His Lys Gln Ala Leu Leu Gln Tyr Gly Ala Arg Thr Gly  
 115 120 125

Val Pro Ser Val Leu Trp Leu  
 130 135

4335

&lt;210&gt; 4764

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4764

His	Lys	Cys	Phe	Gln	Cys	Phe	Ile	Leu	Ala	Asn	Gly	Phe	Leu	Lys	Val
1				5					10					15	

Ile	Lys	Pro	Phe	Gln	Arg	Asn	Trp	Ser	Asp	Lys	Thr	Phe	Phe	Leu	Val
			20				25						30		

Cys	Leu	Asn	Lys	Ala	Ile	Ser	Glu	Ala	Leu	Leu	Ser	Lys	Met	Thr	Phe
		35					40					45			

Leu	Ser	Phe	Phe	Lys	Thr	Asn	Leu	Leu	Leu	Leu	Glu	Thr	Phe	Cys	Thr
	50					55					60				

Ile	Lys	Gln	Ser	Arg	Arg	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
65					70				75						80

Lys	Arg	Ala	Ala	Ala	Leu	Glu	Asp	Pro	Ser	Leu	Arg	Thr	Arg	Ala	Cys
				85					90					95	

Asp	Val	Ile	Ala	Leu	Leu	Leu	Arg	Xaa	Pro
			100					105	

&lt;210&gt; 4765

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (139)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4336

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (286)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4765

Ile Arg His Glu Val Cys Arg Val Leu Pro Ala Pro Xaa Leu Ile Gly  
 1 5 10 15

Ala Met Asp Trp Lys Thr Leu Gln Ala Leu Leu Ser Gly Val Asn Lys  
 20 25 30

Tyr Ser Thr Ala Phe Gly Arg Ile Trp Leu Ser Val Val Phe Val Phe  
 35 40 45

Arg Val Leu Val Tyr Val Val Ala Ala Glu Arg Val Trp Gly Asp Glu  
 50 55 60

Gln Lys Asp Phe Asp Cys Asn Thr Lys Gln Pro Gly Cys Thr Asn Val  
 65 70 75 80

Cys Tyr Asp Asn Tyr Phe Pro Ile Ser Asn Ile Arg Leu Trp Ala Leu  
 85 90 95

Gln Leu Ile Phe Val Thr Cys Pro Ser Leu Leu Val Ile Leu His Val  
 100 105 110

Ala Tyr Arg Glu Glu Arg Glu Arg Arg His Arg Gln Lys His Gly Asp  
 115 120 125

Gln Cys Ala Lys Leu Tyr Asp Asn Ala Gly Xaa Lys His Gly Gly Leu  
 130 135 140

Trp Trp Thr Tyr Leu Phe Ser Leu Ile Phe Lys Leu Ile Ile Glu Phe  
 145 150 155 160

Leu Phe Leu Tyr Leu Leu His Thr Leu Trp His Gly Phe Asn Met Pro  
 165 170 175

Arg Leu Val Gln Cys Ala Asn Val Ala Pro Cys Pro Asn Ile Val Asp  
 180 185 190

Cys Tyr Ile Ala Arg Pro Thr Glu Lys Lys Ile Phe Thr Tyr Phe Met  
 195 200 205

Val Gly Ala Ser Ala Val Cys Ile Val Leu Thr Ile Cys Glu Leu Cys  
 210 215 220

Tyr Leu Ile Cys His Arg Val Leu Arg Gly Leu His Lys Asp Lys Pro  
 225 230 235 240



## 4337

Arg Gly Gly Cys Ser Pro Ser Ser Ser Ala Ser Arg Ala Ser Thr Cys  
                           245                          250                          255

Arg Cys His His Lys Leu Val Glu Ala Gly Glu Val Asp Pro Asp Pro  
                           260                          265                          270

Gly Asn Asn Lys Leu Gln Ala Ser Ala Pro Asn Leu Thr Xaa Ile  
                           275                          280                          285

<210> 4766

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4766

Cys Thr Pro Phe Leu Tyr Thr Glu Cys Gly Leu Leu Ser Glu Ile Gly  
   1                          5                          10                          15

Ser Phe Met Val Leu Glu Pro Pro Leu Tyr Ser Cys Leu Lys Phe Pro  
                           20                          25                          30

Ile Val Thr Glu Asn Ile Gly Cys Lys Ala Pro Gln Ser Pro Gln Val  
                           35                          40                          45

Pro Ser Val Ser Leu Asn Val Leu Val Pro Ser Arg Lys Ala Ser Ala  
                           50                          55                          60

Ser Ala Pro Phe Pro Pro Val Pro Ser Pro Arg Ile Met Asn Gly Tyr  
   65                          70                          75                          80

Cys Thr Val Lys Thr Val Val Ser Phe His  
                           85                          90

<210> 4767

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4767

Xaa Ser Gly Gln Lys Pro Gly Val Leu Ile Leu Pro Ser Val Ser Val  
   1                          5                          10                          15

4338

Leu Gly Ser Gly Phe Cys Arg His Pro Leu Thr Ser Ala Glu Leu Leu  
                   20                  25                  30  
 Gly Leu Leu Pro Ala His His Ile Ala Tyr Leu Gln Cys Gln Ser Leu  
                   35                  40                  45  
 Thr Val Thr Leu Ser Ala Leu Val Ser Leu Ala Glu Pro Arg Cys Pro  
                   50                  55                  60  
 Cys Ser Arg Gly Gln Lys Ala Cys Thr Trp Ala Lys Gly Pro Lys Val  
                   65                  70                  75                  80  
 His Trp Thr Val Gly Lys Thr Pro Asp His His Leu Arg Thr Leu Ser  
                   85                  90                  95  
 Gln Asn Gly Lys Phe Thr Arg Thr Pro Phe Leu Ser Leu Cys Glu Ser  
                   100                  105                  110  
 Pro Arg Glu Arg His Cys Thr Asp Ile  
                   115                  120

&lt;210&gt; 4768

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4768

Phe Arg Asp His Pro Cys Lys Phe Pro Lys Asp Phe Phe Asn Met Val  
           1                  5                  10                  15

Leu Leu Ile Gln Ser Gly Gln Leu Asn Leu Lys Ser Thr Pro Xaa Lys  
                   20                  25                  30

Pro Ser Gly Val Asp Asn Lys Ala His Lys Leu Arg Gln Phe Ser Phe

4339

35

40

45

Leu Xaa Pro Phe Arg Xaa Gly Thr Thr Thr Gly Ser  
 50 55 60

&lt;210&gt; 4769

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4769

Val Cys Asn Lys Ile Val Glu Ser Cys Met Ile Lys Ser Leu Leu Cys  
 1 5 10 15

Ser Glu Ile His Ser Asp Phe Leu Val Ser Pro Tyr Ile Ile Cys Ile  
 20 25 30

Leu Val Phe Phe Leu Thr Leu Leu Pro Leu Leu Pro Asn Arg Asp Leu  
 35 40 45

Asn Leu Ser Leu Phe Ser Ser Ser Arg Pro Gly Leu Val Pro Asp Ser  
 50 55 60

Ser Lys Asn Leu Asp Ser Lys Ala Tyr Phe Ile Val Cys Leu  
 65 70 75

&lt;210&gt; 4770

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4770

Gln Ala Arg Ile His Leu Thr Lys Gly Asn Lys Ser Trp Ser Ser Thr  
 1 5 10 15

Ala Val Ala Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn  
 20 25 30

Ser Ala Arg Asp  
 35

&lt;210&gt; 4771

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4340

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4771

Gly Ile Ser Phe Thr Leu Thr His Phe Ala Pro Leu Pro Phe Cys Tyr  
1 5 10 15

Lys Tyr Tyr His Gly Met Lys Gln Lys Ala Cys Tyr Leu Pro Phe His  
20 25 30

Asp His Phe Ala Asp Thr Val Ser Ala Thr Ser Lys Pro Ser Asn Ser  
35 40 45

Met Asn Ser Arg Thr Asp Leu Asn Val Val Cys Val Gln Gly Ser Tyr  
50 55 60

Xaa Asn Phe Leu Asn Leu Lys Cys His Gln Lys Thr Phe Cys Ser Leu  
65 70 75 80

Leu Leu Leu Phe Phe Phe Phe  
85

&lt;210&gt; 4772

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4772

Val Trp Leu Ala Leu Ser Val Val Gly Ser Val Tyr Thr Pro Pro Phe  
1 5 10 15

Ser Ser Leu Gly Val Phe Phe Arg Asn Pro Lys Ala Thr Leu Arg Ala  
20 25 30

Val Leu Thr Phe Leu Ser Thr Val Asp Tyr Pro Cys Leu Leu Gly Gly  
35 40 45

Leu Xaa Met Gly Gln Arg Trp Arg Ser Pro Ser Gly  
50 55 60

## 4341

&lt;210&gt; 4773

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4773

Lys Lys Lys Ser Phe Ser Glu Gly Glu Lys Ile Val Trp Val Trp Pro  
1 5 10 15

Leu His Ile Leu Ala Asn Tyr Val Ala Ile Phe Met Ala Ser Val Ile  
20 25 30

Lys Thr Leu Leu Leu Gly Ser Arg Ala Val Val Leu Asp Ser Leu His  
35 40 45

Ser Ala His Leu Leu Lys Ser His Glu Ser Ser Leu Glu Ser  
50 55 60

&lt;210&gt; 4774

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4774

Thr Ala Gln Gly Ile Gly Cys Thr Lys Leu Val Leu Lys Leu Leu Leu  
1 5 10 15

Gly Ser Pro Gly Ala His Val Ser His Leu Leu Pro Ile His Ile Ser  
20 25 30

Ala His Leu Ala Glu Ala Phe Pro Asp Leu Thr Ser Asp Asn Val His  
35 40 45

Val Met Asn Thr Pro Lys Trp Leu Gly Leu Leu His Leu Ser Arg Trp  
50 55 60

Ile Leu Pro Gln His Trp Gly Phe Leu Trp Ala Val His His Gly Tyr  
65 70 75 80

Ile Ser Gly Phe Gln Asp Cys  
85

&lt;210&gt; 4775

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4342

&lt;400&gt; 4775

Ala Lys Cys Met Leu Lys His Val Phe Thr Ser Val Lys Ser Phe Val  
1 5 10 15  
Asp Leu Leu Glu Met Lys Gly Phe Tyr Leu Asp Thr Val Ser Tyr Thr  
20 25 30  
Ser Leu Thr Ile Ile Phe Val Ile Val Val Phe Cys Lys Gln Lys Cys  
35 40 45  
Leu Trp Ala Ser Cys Arg Leu Lys Ile Val Gly Lys Asn Gly Leu Ser  
50 55 60  
Ser Gly Pro Phe Lys Gln  
65 70

&lt;210&gt; 4776

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (113)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4776

Leu Asn Gln Met Ile Leu Thr Tyr Tyr Glu Gly Glu Glu Val Asn Ala  
1 5 10 15  
Gly Arg Ile Gly Leu Thr Leu Val Val Ala Gly Met Val Gly Ser Ile  
20 25 30  
Leu Cys Gly Leu Trp Leu Asp Tyr Thr Lys Thr Tyr Asn Phe Phe Met  
35 40 45  
Thr Gly Tyr Leu Pro Leu Gly Phe Glu Phe Ala Val Glu Ile Thr Tyr  
50 55 60

4343

Pro Glu Ser Glu Gly Thr Ser Ser Gly Leu Leu Asn Ala Ser Ala Gln  
 65 70 75 80

Ile Phe Gly Ile Leu Phe Thr Leu Ala Gln Gly Lys Leu Thr Ser Xaa  
 85 90 95

Tyr Gly Pro Lys Ala Gly Asn Ile Xaa Leu Cys Val Trp Met Phe Ile  
 100 105 110

Xaa Ile Ile Leu Thr Ala Leu Ile Lys Ser Asp Leu Arg Asp Thr Thr  
 115 120 125

&lt;210&gt; 4777

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4777

Thr Asn Asp Tyr Lys Val Ser Val Gly Leu Trp Phe Arg Gly Pro Ser  
 1 5 10 15

Xaa Ser Phe Leu Phe Pro Leu Ala Leu Met Arg Glu Met Pro Ser Ser  
 20 25 30

Val Trp Ile Phe Leu Gly Ala Leu Trp Arg Asn Gly Val Cys Val Leu  
 35 40 45

Thr Glu Glu Ser Gln Lys Xaa Glu Thr Ile Phe Ile Tyr Cys His His  
 50 55 60

4344

Lys Tyr Ser Pro Pro Phe Lys Met Pro Val Tyr Thr Ala Ile Trp Glu  
 65 70 75 80

Thr Xaa Val Leu Glu Glu Ala Gly Ala Glu Gly Val Lys Thr Ser Ser  
 85 90 95

Val Gly

<210> 4778

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4778

Lys Gly Leu Phe Leu His Ile Tyr Ile Ile Tyr Val Tyr Ile Tyr Asn  
 1 5 10 15

Ile Tyr Met Xaa Ile Tyr Ile Ile Tyr Ile Tyr Tyr Ile Tyr Asn Ile  
 20 25 30

Tyr Ile Lys Tyr Ile Tyr Ile Cys Ser Pro Leu Ser Ala Ser Leu Ser  
 35 40 45

Gln Gly Xaa Ser Val Gly Xaa Cys Leu Gly Pro Ala Ser Leu Leu Thr  
 50 55 60

Ser Ser Ser Pro Leu Gly Thr Leu Ser Pro Tyr Ile Leu Ile Leu Asp  
 65 70 75 80



4345

His Val Xaa Asn Cys Phe Trp Val Asn Val Asp Ile Ile Val Ile Ile  
                     85                    90                    95

Ile Ile Asn

<210> 4779

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4779

Gly Phe Lys Ile Gly Arg Lys Cys Ser Ser Gly Lys Met Cys Ala Val  
     1                    5                    10                    15

Gln Lys Thr His Lys Phe Phe Arg Lys Gln Leu Gly Pro Val Xaa Val  
                     20                    25                    30

Asp Gln Ile Glu Ser Pro Arg Ile Leu Gly Ser Ser Xaa Leu Met Asn  
                     35                    40                    45

Gly Phe Trp Leu Ile Leu Pro Val Leu Gln Phe Leu Leu Leu Cys Glu  
                     50                    55                    60

Met Gly Asn Thr Leu Ser Ala Ser Leu Arg Cys His Gly Asn Lys Gln  
     65                    70                    75                    80

Asn

<210> 4780

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4780

## 4346

Ser Thr Leu Arg Pro Ala Ala Gly Lys Glu Trp Glu Gln Trp Leu Ser  
 1 5 10 15  
 Ala Ile Arg Ser Gly Ser Met Gly Gln Trp Leu Asp Phe Cys Pro Arg  
 20 25 30  
 Pro Glu Glu Cys Ala Val Leu Ala Ser Val Ser Pro Pro Val Ala Leu  
 35 40 45  
 Val Gln Glu Pro Thr Val Gly Cys Ser Leu Pro Gly Pro Leu Leu Leu  
 50 55 60  
 Trp Ile Leu Pro Thr Pro Ser Cys Ser Trp Gly Arg Pro Phe Ser Gln  
 65 70 75 80  
 Arg Ser Leu Asn Lys Pro Lys Asn Pro Gln Lys Lys Lys Lys Lys  
 85 90 95

&lt;210&gt; 4781

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4781

Phe Ile Cys Thr Thr Phe Phe Arg Val Ala Ala Arg Thr Asn Leu Cys  
 1 5 10 15  
 Ala Leu Lys Cys Tyr Leu Leu Leu Ser Val Pro Lys Tyr Arg Glu Ile  
 20 25 30  
 Met Leu Gln Ile Ser Leu Leu Leu Asn Ile Met Leu Pro Asp Ala Phe  
 35 40 45  
 Ser Arg His  
 50

&lt;210&gt; 4782

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4782

Ser Asp Leu Leu Phe Leu Asn Tyr Arg Gln Leu Phe Gly Glu Glu Asp  
 1 5 10 15  
 Ala Asp Gln Glu Val Ser Pro Asp Arg Ala Asp Pro Glu Ala Ala Trp  
 20 25 30

4347

Glu Pro Thr Glu Ala Glu Ala Arg Ala Arg Ala Ser Asn Glu Asp Gly  
 35 40 45  
 Asp Ile Lys Arg Ile Ser Thr Lys Glu Trp Ala Lys Ser Thr Gly Tyr  
 50 55 60  
 Asp Pro Val Lys Leu Phe Thr Lys Leu Phe Lys Asp Asp Ile Arg Tyr  
 65 70 75 80  
 Leu Leu Thr Met Asp Lys Leu Trp Arg Lys Arg Lys Pro Pro Val Pro  
 85 90 95  
 Leu Asp Trp Ala Glu Val Gln Ser Gln Gly Glu Glu Thr Asn Ala Ser  
 100 105 110  
 Asp Gln Gln Asn Glu Pro Gln Leu Gly Leu Lys Asp Gln Gln Val Leu  
 115 120 125  
 Asp Val Lys Ser Tyr Ala Arg Leu Phe Ser Lys Ser Ile Glu Thr Leu  
 130 135 140  
 Arg Val His Leu Ala Glu Lys Gly Asp Gly Ala Glu Leu Ile Trp Asp  
 145 150 155 160  
 Lys Asp Asp Pro Ser Ala Met Asp Phe Val Thr Ser Ala Ala Asn Leu  
 165 170 175  
 Arg Met His Ile Phe Ser Met Asn Met Lys Ser Arg Phe Asp Ile Lys  
 180 185 190  
 Ser Met Ala Gly Asn Ile Ile Pro Ala Ile Ala Thr Thr Asn Ala Val  
 195 200 205  
 Ile Ala Gly Leu Ile Val Leu Glu Gly Leu Lys Ile Leu Ser Gly Lys  
 210 215 220  
 Ile Asp Gln Cys Arg Thr Ile Phe Leu Asn Lys Gln Pro Asn Pro Arg  
 225 230 235 240  
 Lys Lys Leu Leu Val Pro Cys Ala Leu Asp Pro Pro Asn Pro Asn Cys  
 245 250 255  
 Tyr Val Cys Ala Ser Lys Pro Glu Val Thr Val Arg Leu Asn Val His  
 260 265 270  
 Lys Val Thr Val Leu Thr Leu Gln Asp Lys Ile Val Lys Glu Lys Phe  
 275 280 285  
 Ala Met Val Ala Pro Asp Val Gln Ile Glu Asp Gly Lys Gly Thr Ile  
 290 295 300

4348

Leu Ile Ser Ser Glu Glu Gly Glu Thr Glu Ala Asn Asn His Lys Lys  
 305 310 315 320

Leu Ser Glu Phe Gly Ile Arg Asn Gly Ser Arg Leu Gln Ala Asp Asp  
 325 330 335

Phe Leu Gln Asp Tyr Thr Leu Leu Ile Asn Ile Leu His Ser Glu Asp  
 340 345 350

Leu Gly Lys Asp Val Glu Phe Glu Val Val Gly Asp Ala Pro Glu Lys  
 355 360 365

Val Gly Pro Lys Gln Ala Glu Asp Ala Ala Lys Ser Ile Thr Asn Gly  
 370 375 380

Ser Asp Asp Gly Ala Gln Pro Ser Thr Ser Thr Ala Gln Glu Gln Asp  
 385 390 395 400

Asp Val Leu Ile Val Asp Ser Asp Glu Glu Asp Ser Ser Asn Asn Ala  
 405 410 415

Asp Val Ser Glu Glu Glu Arg Ser Arg Lys Arg Lys Leu Asp Glu Lys  
 420 425 430

Glu Asn Leu Ser Ala Lys Arg Ser Arg Ile Glu Gln Lys Glu Glu Leu  
 435 440 445

Asp Asp Val Ile Ala Leu Asp  
 450 455

<210> 4783

<211> 78

<212> PRT

<213> Homo sapiens

<400> 4783

Lys His Arg Tyr Leu Val Leu Thr Gly Cys Ala Trp Leu Thr Gln Val  
 1 5 10 15

His Leu Pro His Gly Lys Ser Ser Ser Lys Pro Leu His Asp Leu Trp  
 20 25 30

Gly Ala Gly Ser Gln Phe Val Ala Cys Asp Leu Pro Gln Pro Gln Lys  
 35 40 45

Ile Arg Asp His Glu Ala Pro Pro Pro Pro Gly Ser Gly Asn Leu Ile  
 50 55 60

4349

His Ile Ala Arg Ala Leu Pro Val Arg Leu Trp Met Leu Thr  
 65 70 75

&lt;210&gt; 4784

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4784

Pro Ser Ser Pro Arg His Ile Ser Pro Arg Met Asn Ala Val Leu Ser  
 1 5 10 15

Ala His Val Cys Val Glu Ala Ala Lys Val Gly Glu Leu Trp Ser Cys  
 20 25 30

Pro Asp Pro Phe Gly Ile Ala Gly Pro Ser Ser His Trp Arg Ala Gly  
 35 40 45

Val Gln Leu Thr Leu Gly Lys Glu Thr Ser Cys Leu Arg Val Ile Ser  
 50 55 60

Cys Glu Cys Lys Ala Trp Gly Ser Gly Ser Leu Gly Gly Lys Glu Pro  
 65 70 75 80

Val Arg Gly Leu Phe Pro Leu Ile Glu Leu Pro Arg Arg Ala Ser Ala  
 85 90 95

Met Pro Glu Thr Gln Thr  
 100

&lt;210&gt; 4785

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4785

Glu Ile Pro Leu Leu Cys Phe Ala Ser Glu Ser Ser His Pro His Pro  
 1 5 10 15

Gln Asn Cys Gly Ala Trp Trp Ala Leu Thr Ser Thr Pro Leu Leu Phe  
 20 25 30

Ser Phe Ile Thr Phe Asp Leu Leu Lys Thr Ser Glu Arg Met Ser Val  
 35 40 45

Lys Phe Phe Ser Pro Ser Ser Ser Leu Ser Ser Leu Lys Gly Arg Asp  
 50 55 60

## 4350

Cys Ala Asn Thr Lys Gln Tyr Ser Phe Val Ser Ala Asn Ala Ser Val  
 65 70 75 80

Asp Ile Pro Ile Gly Ile Lys  
 85

<210> 4786

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4786

His Lys Glu Phe Xaa Arg Val Ser Gly Lys Lys Lys Lys Lys Lys Lys  
 1 5 10 15

Lys Lys Gly Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
 20 25 30

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
 35 40 45

Val Val Leu Gln Arg Arg Asp Trp Xaa Asn Pro Gly Val Thr Gln Leu  
 50 55 60

<210> 4787

<211> 56

<212> PRT

<213> Homo sapiens

<400> 4787

Asp Thr Val Leu Lys Lys Ile Lys Asn Cys Lys Lys Met Lys Lys Lys  
 1 5 10 15

## 4351

Val Leu Ser Ile Ile Cys Ile Ile Gly Ile His Met Ser Leu His Lys  
                   20                  25                  30

Met Phe Asn Leu Lys Glu Ile Pro Leu Ile Leu Tyr Val Leu Leu Ser  
                   35                  40                  45

Val Val Cys Phe Ser Phe Ser Tyr  
           50                  55

&lt;210&gt; 4788

&lt;211&gt; 274

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4788

Thr Cys His Cys Leu Pro Pro Pro Pro Ala Arg Ala Met Thr Xaa Xaa  
   1                  5                  10                  15

Val Pro Arg Leu Ser Val Pro Ala Ala Leu Ala Leu Gly Ser Ala Ala  
                   20                  25                  30

Leu Gly Ala Ala Phe Ala Thr Gly Leu Phe Leu Gly Arg Arg Cys Pro  
                   35                  40                  45

Pro Trp Arg Gly Arg Arg Glu Gln Cys Leu Leu Pro Pro Glu Asp Xaa  
                   50                  55                  60

Arg Leu Trp Gln Tyr Leu Leu Ser Arg Ser Met Arg Glu His Pro Ala  
   65                  70                  75                  80

Leu Arg Ser Leu Arg Leu Leu Thr Leu Glu Gln Pro Gln Gly Asp Ser  
                   85                  90                  95

Met Met Thr Cys Glu Gln Ala Gln Leu Leu Ala Asn Leu Ala Arg Leu

## 4352

100	105	110
Ile Gln Ala Lys Lys Ala Leu Asp Leu Gly Thr Phe Thr Gly Tyr Ser 115 120 125		
Ala Leu Ala Leu Ala Leu Ala Leu Pro Ala Asp Gly Arg Val Val Thr 130 135 140		
Cys Glu Val Asp Ala Gln Pro Pro Glu Leu Gly Arg Pro Leu Trp Arg 145 150 155 160		
Gln Ala Glu Ala Glu His Lys Ile Asp Leu Arg Leu Lys Pro Ala Leu 165 170 175		
Glu Thr Leu Asp Glu Leu Leu Ala Ala Gly Glu Ala Gly Thr Phe Asp 180 185 190		
Val Ala Val Val Asp Ala Asp Lys Glu Asn Cys Ser Ala Tyr Tyr Glu 195 200 205		
Arg Cys Leu Gln Leu Leu Arg Pro Gly Gly Ile Leu Ala Val Leu Arg 210 215 220		
Val Leu Trp Arg Gly Lys Val Leu Gln Pro Pro Lys Gly Asp Val Ala 225 230 235 240		
Ala Glu Cys Val Arg Asn Leu Asn Glu Arg Ile Arg Arg Asp Val Arg 245 250 255		
Val Tyr Ile Ser Leu Leu Pro Leu Gly Asp Gly Leu Thr Leu Ala Phe 260 265 270		
Lys Ile		

&lt;210&gt; 4789

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (143)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4789

Tyr Tyr Arg Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro
1 5 10 15



## 4353

Gly Ser Thr His Ala Ser Gly Ser Arg Phe Gln Ala Ser Ser Gln Leu  
                     20                    25                    30  
 Arg Ala Gly Ser Trp Arg Pro Arg Pro Leu Pro Pro Val Val Pro Ala  
                     35                    40                    45  
 Val Pro Asp Gly Ser Ala Met Ala Gln Pro Pro Pro Asp Val Glu Gly  
                     50                    55                    60  
 Asp Asp Cys Leu Pro Ala Tyr Arg His Leu Phe Cys Pro Asp Leu Leu  
                     65                    70                    75                    80  
 Arg Asp Lys Val Ala Phe Ile Thr Gly Gly Gly Ser Gly Ile Gly Phe  
                     85                    90                    95  
 Arg Ile Ala Glu Ile Phe Met Arg His Gly Cys His Thr Val Ile Ala  
                     100                    105                    110  
 Ser Arg Ser Leu Pro Arg Val Leu Thr Ala Ala Arg Lys Leu Ala Gly  
                     115                    120                    125  
 Ala Thr Gly Arg Arg Cys Leu Pro Leu Ser Met Asp Val Arg Xaa Pro  
                     130                    135                    140  
 Pro Ala Val Met Ala Ala Val Asp Gln Ala Leu Lys Glu Phe Gly Arg  
                     145                    150                    155                    160  
 Ile Asp Ile Leu Ile Asn Cys Ala Ala Gly Asn Phe Leu Cys Pro Ala  
                     165                    170                    175

Gly

&lt;210&gt; 4790

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4790

Xaa His Leu His Pro Leu Pro Phe Gln Ser Phe Ala Ser Pro Pro His  
           1                    5                    10                    15

Leu Ala Ile Lys Leu His Glu Asp Phe Ser Ser Ser Gly Ser Ala Trp  
                     20                    25                    30

4354

Asn Leu Ser Tyr Ile Leu Pro Phe Pro Thr Cys Ser Leu Glu Cys Pro  
           35                          40                          45

Phe His Lys Tyr Ala Pro Thr Ala Gly Ser Ile Phe Phe Ser Phe Arg  
           50                          55                          60

His Leu  
       65

<210> 4791

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4791

Ala Ile Ser Xaa Val Arg Thr Ser Asn Ser Pro Ile Leu Ser Tyr Val  
       1                          5                          10                          15

Xaa Ser Asn Lys Leu His His Leu Leu Thr Gly Phe Phe Ile Ser Val  
           20                          25                          30

Ile Ile Val Phe Ile Ser Arg Tyr Ser Ile Cys Leu Lys Asn Ile Cys  
           35                          40                          45

Met Ile Leu His Gly Phe Asn Ser Pro Asp Glu Tyr Xaa Ala Phe Asn  
           50                          55                          60

His Pro Ser Thr  
       65

<210> 4792

4355

<211> 84  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (17)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (61)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (62)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4792

Thr Xaa Phe Phe Leu Met Lys Cys Ile Val Phe Pro Leu Ala Leu Lys  
 1 5 10 15

Xaa His Ile Trp Cys Gln Ala Val Leu Leu Xaa Leu Thr Gly Glu Trp  
 20 25 30

Gln Leu Cys Leu Leu Ser Ala Ser Pro Ala Val Pro Ala Val Ser Gly  
 35 40 45

Thr Cys Ile Met Thr Arg Leu His Phe Pro Pro Ile Xaa Xaa Gln Arg  
 50 55 60

Phe Trp Glu Glu Glu Cys Asp Cys Met Ala Arg Ser Leu Gln Pro Gln  
 65 70 75 80

Ser Ala Ala Cys

<210> 4793

4356

<211> 88  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (41)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (45)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (54)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (65)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (74)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4793

Gly Ser Val Leu His His Pro His Ala Thr Pro Thr Thr His Arg Cys  
 1 5 10 15

Thr Ala Thr Val Thr Gly Ala Ser Cys Leu Arg Met Gly Leu Arg Val  
 20 25 30

Ile Asn Phe Phe Lys Gly Tyr Ile Xaa Ile Ala Tyr Xaa Ile Gln Ile  
 35 40 45

Lys Gly Pro Glu Phe Xaa Ala Asn Cys Thr Tyr Leu Phe Ala Asn Leu  
 50 55 60

Xaa His His Arg Lys Pro Lys Asp Ser Xaa Cys Gly Gln Ser Phe Thr  
 65 70 75 80

Leu Gln Ser Leu Lys Tyr Phe Phe  
 85

<210> 4794

4357

<211> 26  
 <212> PRT  
 <213> Homo sapiens

<400> 4794  
 Arg Ser Ser Leu Phe His Gln Ala Gly Val Gln Trp His Asp Leu Ser  
 1 5 10 15  
 Ser Leu Gln Ser Pro Pro Pro Gln Phe Lys  
 20 25

<210> 4795  
 <211> 404  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (310)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4795  
 Ile Asp Arg Glu Leu Ser Pro Glu Gly Pro Gly Lys Glu Lys Glu Leu  
 1 5 10 15  
 Pro Gly Gln Thr Leu His Trp Gly Pro Glu Ala Thr Glu Ala Ala Gly  
 20 25 30  
 Arg Gly Leu Gln Pro Leu Lys Leu Asp Tyr Arg Ala Leu Ala Ala Val  
 35 40 45  
 Pro Ser Ala Gly Ser Val Gln Arg Val Pro Ser Gly Ala Ala Gly Gly  
 50 55 60  
 Lys Met Ala Glu Ser Pro Cys Ser Pro Ser Gly Gln Gln Pro Pro Ser  
 65 70 75 80  
 Pro Pro Ser Pro Asp Glu Leu Pro Ala Asn Val Lys Gln Ala Tyr Arg  
 85 90 95  
 Ala Phe Ala Ala Val Pro Thr Ser His Pro Pro Glu Asp Ala Pro Ala  
 100 105 110  
 Gln Pro Pro Thr Pro Gly Pro Ala Ala Ser Pro Glu Gln Leu Ser Phe  
 115 120 125  
 Arg Glu Arg Gln Lys Tyr Phe Glu Leu Glu Val Arg Val Pro Gln Ala  
 130 135 140

## 4358

Glu Gly Pro Pro Lys Arg Val Ser Leu Val Gly Ala Asp Asp Leu Arg  
 145 150 155 160  
 Lys Met Gln Glu Glu Glu Ala Arg Lys Leu Gln Gln Lys Arg Ala Gln  
 165 170 175  
 Met Leu Arg Glu Ala Ala Glu Ala Gly Ala Glu Ala Arg Leu Ala Leu  
 180 185 190  
 Asp Gly Glu Thr Leu Gly Glu Glu Glu Gln Glu Asp Glu Gln Pro Pro  
 195 200 205  
 Trp Ala Ser Pro Ser Pro Thr Ser Arg Gln Ser Pro Ala Ser Pro Pro  
 210 215 220  
 Pro Leu Gly Gly Gly Ala Pro Val Arg Thr Ala Lys Ala Glu Arg Arg  
 225 230 235 240  
 His Gln Glu Arg Leu Arg Val Gln Ser Pro Glu Pro Pro Ala Pro Glu  
 245 250 255  
 Arg Ala Leu Ser Pro Ala Glu Leu Arg Ala Leu Glu Ala Glu Lys Arg  
 260 265 270  
 Ala Leu Trp Arg Ala Ala Arg Met Lys Ser Leu Glu Gln Asp Ala Leu  
 275 280 285  
 Arg Ala Gln Met Val Leu Ser Arg Ser Gln Glu Gly Arg Gly Thr Arg  
 290 295 300  
 Gly Pro Leu Glu Arg Xaa Ala Glu Ala Pro Ser Pro Ala Pro Thr Pro  
 305 310 315 320  
 Ser Pro Thr Pro Val Glu Asp Leu Gly Pro Gln Thr Ser Thr Ser Pro  
 325 330 335  
 Gly Arg Leu Ser Pro Asp Phe Ala Glu Glu Leu Arg Ser Leu Glu Pro  
 340 345 350  
 Ser Pro Ser Pro Gly Pro Gln Glu Glu Asp Gly Glu Val Ala Leu Val  
 355 360 365  
 Leu Leu Gly Arg Pro Ser Pro Gly Ala Val Gly Pro Glu Asp Val Ala  
 370 375 380  
 Leu Cys Ser Ser Arg Arg Pro Val Arg Pro Gly Arg Arg Gly Leu Gly  
 385 390 395 400  
 Pro Val Pro Ser

4359

&lt;210&gt; 4796

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4796

Gly Xaa Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala Leu Glu Leu  
 1 5 10 15

Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Val Cys Leu Phe Arg  
 20 25 30

Leu Lys Phe Phe Leu Lys Cys Leu Val Ile Pro Gly Phe Leu Leu Ile  
 35 40 45

Ile Lys Glu Lys Asn Ala Asp Ser Leu Asp Pro Gly Arg Ala Ser Leu  
 50 55 60

Pro Asp Cys Arg Leu Ala Ser Gly Ile His Gly Phe Pro Lys Cys  
 65 70 75

&lt;210&gt; 4797

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4797

Pro Pro Pro Ser Leu Ser Phe Ser Ser Ser Val Phe Leu Leu Ser Ser  
 1 5 10 15

Phe Phe Pro Ser Pro Ser Ser Ile Ala Thr Phe Ser Pro Thr Arg Thr  
 20 25 30

Gln Ala Tyr Lys Arg Arg Phe Leu Met Leu Leu Cys Leu Leu Thr Pro  
 35 40 45

Leu Phe Ser Cys Phe Gln Gln Val Phe Leu Pro Pro Val Pro Gln Leu  
 50 55 60

Leu Leu Leu Leu Arg Arg Ser Asp Leu Pro Leu Met Val Ile Pro Ala  
 65 70 75 80

4360

Pro Leu Arg Pro Thr Ser Ala Lys Lys Glu Lys Val Lys Gln Gln Gln  
                     85                    90                    95

Gln

&lt;210&gt; 4798

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4798

Ala Ser Tyr Tyr Met Xaa Leu His Phe Pro Gln Trp Phe Val His Ser  
   1                    5                    10                    15

Ser Ala Leu Gly Leu Val Leu Ala Pro Pro Phe Ser Ser Pro Gly Thr  
                     20                    25                    30

Asp Pro Thr Phe Pro Cys Ile Tyr Cys Arg Leu Leu Asn Met Ile Met  
                     35                    40                    45

Thr Arg Leu Ala Phe Ser Phe Ile Thr Cys Leu Cys Pro Asn Leu Lys  
                     50                    55                    60

Glu Val Cys Leu Ile Leu Pro Glu Lys Asn Cys Asn Ser Arg His Ala  
   65                    70                    75                    80

Gly Phe Val Gly Pro Ala Lys Leu Arg Gln  
                     85                    90

&lt;210&gt; 4799

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4799

His Cys Tyr His Ser His Ala Lys His Trp Leu His Thr Cys Ser Leu  
   1                    5                    10                    15

Phe Val Ile Asn Ile Lys Arg Leu Asp Leu Lys Pro Ser Ile Asn Glu  
                     20                    25                    30



4361

Arg Pro Phe Ile Trp His Ser Trp Asn Lys Thr Leu His Arg Tyr Gln  
                   35                                  40                                  45

Pro Leu His Ser  
                   50

&lt;210&gt; 4800

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4800

Phe Val Gly Leu Thr Leu Pro Phe Ser Phe Ser Leu Glu Cys Leu Leu  
   1                                  5                                  10                                  15

Gly Tyr Ala Leu Val Gly Leu Met Ser Phe Leu Gly Leu Gly Gly Val  
                   20                                  25                                  30

Cys Val Trp Leu Val Trp Gly Thr Phe Arg Gly Ser Ser Cys Thr Phe  
                   35                                  40                                  45

Pro Leu Leu Ser Val Cys Ser Ser Leu His Leu Leu Phe Val Cys Val  
                   50                                  55                                  60

His Phe Phe Ser Glu Gln Ser Phe Ser Leu Ala Thr Leu Ser Ser Leu  
   65                                  70                                  75                                  80

Thr Val Phe Leu Phe Ser Ser Ser Leu Arg  
                                   85                                  90

&lt;210&gt; 4801

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4801

Leu Lys Leu Lys Arg Arg Gln Gly Ser Ile Gln Ala Glu Pro Val Leu  
   1                                  5                                  10                                  15

Val Gln Thr Lys Asn Leu Thr Gly Thr Met Glu Gly Ser Ser Ser Pro  
                   20                                  25                                  30

Leu Leu Thr Phe Tyr Val Met Glu Arg Leu Glu Leu Ile Lys Val Leu  
                   35                                  40                                  45

Pro Phe Phe Tyr Ser Pro Glu Tyr Gln Arg Gln Leu Lys Ser Ala Thr  
                   50                                  55                                  60

4362

Asn Asp Leu Pro Val Ser Cys Phe Ile Phe Val Ile Asp Phe  
 65 70 75

&lt;210&gt; 4802

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4802

Val Pro Ala Thr Thr Pro Gly Gln Tyr Leu Tyr Phe Leu Trp Arg Arg  
 1 5 10 15

Gly Phe Ala Met Leu Ala Arg Leu Val Ser Asn Tyr Trp Ala Gln Val  
 20 25 30

Ile His Pro Pro Gln Pro Pro Lys Val Leu Arg Leu Gln Ala  
 35 40 45

&lt;210&gt; 4803

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4803

Trp Val Pro Leu Leu Phe Ala Phe Ser Phe Ser Glu Asn Val Cys Val  
 1 5 10 15

Leu Pro Leu Phe Trp Leu His Leu Gln Asn Ile Ser Phe Val Pro Met  
 20 25 30

Tyr Met Cys Lys His Ala Ile Ala Cys Val Val Gly Val Leu Tyr Phe  
 35 40 45

Val Trp Glu Lys Asn Tyr Gln Asn Glu Glu Glu Asn Phe Pro Tyr Leu  
 50 55 60

Cys Thr Arg Phe Leu Cys Phe Phe Phe Glu Phe Ser Gly Val Asp Ile  
 65 70 75 80

Asn Leu Ile Pro Ser Trp  
 85

&lt;210&gt; 4804

&lt;211&gt; 71

4363

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4804

Leu Trp Gln Asn Leu Phe Trp His Asn His Ile Cys Ser Leu Tyr Lys  
 1 5 10 15

Ile Ser Phe Leu Cys Phe Arg Lys Asn Val Ser Tyr Tyr Ser Glu Ser  
 20 25 30

Cys Asp Ser Asp Ser Ser Trp Phe Gly Ala Gln Lys Phe Leu Asn Met  
 35 40 45

Ser Leu Leu Leu Val Lys His Arg Ile Cys Phe Leu Gln Lys Phe Ile  
 50 55 60

Phe Asn Glu Glu Tyr Leu Ser  
 65 70

&lt;210&gt; 4805

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4805

Ala Leu His Thr Cys Trp Tyr Leu Leu Ala Asn Cys Ala Ala Leu Thr  
 1 5 10 15

Cys His Leu Ser Leu Cys Pro Asn Thr Thr Thr Val Ala Thr Val Pro  
 20 25 30

Thr Thr Ile Pro Thr Val Thr Leu Val Ile Ala Tyr Ser Ala Thr Asn  
 35 40 45

## 4364

Ser Pro Cys Gly Ser Thr Ser Met Leu Gly Leu Leu Ala Leu Pro Ser  
 50 55 60

Met Ser Thr Tyr Met Ala Ala Ser Ala Tyr Thr Thr Xaa Leu Leu Thr  
 65 70 75 80

Phe Thr Leu Val Gly Thr Leu Asn Leu Ala Ile Val Arg Leu Leu Ser  
 85 90 95

Ser Asn Arg Leu Thr Cys Asn Asn Xaa Xaa  
 100 105

&lt;210&gt; 4806

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (57)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4806

Trp Asp Cys Arg His Pro Pro Ser Cys Pro Ala Lys Phe Cys Thr Phe  
 1 5 10 15

Val Glu Met Glu Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu  
 20 25 30

Thr Ser Gly Asp Leu Pro Thr Leu Ala Ser Gln Ser Ala Gly Ile Thr  
 35 40 45

Gly Val Ser His His Ala Trp Thr Xaa Cys Cys Cys Cys Phe  
 50 55 60

&lt;210&gt; 4807

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4365

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4807

Met Lys Glu Asp Leu Phe Ser Leu Arg Ser Val Cys Gly Val Ser Cys  
 1 5 10 15

Pro Gly Leu Leu Ser Glu Val Trp Pro Gln Gly Leu Arg Glu Val Ala  
 20 25 30

Arg Thr Pro Gln Gly Gly Pro His His Arg Gly Cys Cys Pro Thr Gly  
 35 40 45

Ser Ser Pro Xaa Ser Gly Thr Leu Pro Xaa Ser Leu Trp Glu Gly Glu  
 50 55 60

Met Ala Thr Gly Leu Glu Asn Arg His Pro Val  
 65 70 75

&lt;210&gt; 4808

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (167)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (174)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4808

Gly Leu Val Gly Pro Leu Leu Val Cys Arg Ala Gly Ala Leu Gly Ala  
 1 5 10 15

Asp Gly Lys Gln Lys Gly Val Asp Lys Glu Phe Phe Leu Leu Phe Thr  
 20 25 30

Val Leu Asp Glu Asn Lys Ser Trp Tyr Ser Asn Ala Asn Gln Ala Ala  
 35 40 45

## 4366

Ala Met Leu Asp Phe Arg Leu Leu Ser Glu Asp Ile Glu Gly Phe Gln  
 50 55 60

Asp Ser Asn Arg Met His Ala Ile Asn Gly Phe Leu Phe Ser Asn Leu  
 65 70 75 80

Pro Arg Leu Asp Met Cys Lys Gly Asp Thr Val Ala Trp His Leu Leu  
 85 90 95

Gly Leu Gly Thr Glu Thr Asp Val His Gly Val Met Phe Gln Gly Asn  
 100 105 110

Thr Val Gln Leu Gln Gly Met Arg Lys Gly Ala Ala Met Leu Phe Pro  
 115 120 125

His Thr Phe Val Met Ala Ile Met Gln Pro Asp Asn Leu Gly Thr Phe  
 130 135 140

Glu Ile Tyr Cys Gln Ala Gly Lys Pro Ser Arg Thr Xaa Met Lys Ala  
 145 150 155 160

Ile Tyr Asn Gly Ser Asn Xaa Leu Gly Thr Lys Pro Pro Xaa Ala Thr  
 165 170 175

Leu Pro Thr Cys Lys Asn Leu Leu Phe His Gly  
 180 185

&lt;210&gt; 4809

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4809

Ala Ile Pro Leu Thr Asn Asp Gly Val Pro Ser Glu Ser Ser Ala Gly  
 1 5 10 15

Arg Leu Leu Cys Val Gly Arg Leu Gly Leu Gly Arg Gly Leu Ser Pro  
 20 25 30

Asn Leu Gly Pro Ala Glu Gln Glu Gln Asn His Tyr Leu Ala Gln Leu  
 35 40 45

Phe Gly Leu Tyr Gly Glu Asn Gly Thr Leu Thr Ala Gly Gly Leu Ala  
 50 55 60

4367

Arg Leu Leu His Ser Leu Gly Leu Gly Arg Val Gln Gly Leu Arg Leu  
65 70 75 80

Gly Gln His Gly Pro Leu Thr Gly Arg Ala Ala Ser Pro Ala Ala Asp  
85 90 95

Asn Ser Thr His Arg Pro Gln Asn Pro Glu Leu Ser Val Asp Val Trp  
100 105 110

Ala Gly Met Pro Leu Gly Pro Ser Gly Trp Gly Asp Leu Glu Xaa  
115 120 125

<210> 4810

<211> 216

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (197)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (215)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4810

Ala Ser Met Asp Pro Asp Ser Asp Gln Pro Leu Asn Ser Leu Asp Val  
1 5 10 15

Lys Pro Leu Arg Lys Pro Arg Ile Pro Ile Ile Ile Ala Leu Leu Ser  
20 25 30

Leu Ala Ser Ile Ile Ile Val Val Val Leu Ile Lys Val Ile Leu Asp  
35 40 45

Lys Tyr Tyr Phe Leu Cys Gly Gln Pro Leu His Phe Ile Pro Arg Lys  
50 55 60

Gln Leu Cys Asp Gly Glu Leu Asp Cys Pro Leu Gly Glu Asp Glu Glu  
65 70 75 80

## 4368

His Cys Val Lys Ser Phe Pro Glu Gly Pro Xaa Val Ala Val Arg Leu  
85 90 95

Ser Lys Asp Arg Ser Thr Leu Gln Val Leu Asp Ser Ala Thr Gly Asn  
100 105 110

Trp Phe Ser Ala Cys Phe Asp Asn Phe Thr Glu Ala Leu Ala Glu Thr  
115 120 125

Ala Cys Arg Gln Met Gly Tyr Ser Ser Lys Pro Thr Phe Arg Ala Val  
130 135 140

Glu Ile Gly Pro Asp Gln Asp Leu Asp Val Val Glu Ile Thr Glu Asn  
145 150 155 160

Ser Gln Glu Leu Arg Met Arg Asn Ser Ser Gly Pro Cys Leu Ser Gly  
165 170 175

Ser Leu Val Ser Leu His Cys Leu Ala Cys Gly Lys Ser Leu Lys Thr  
180 185 190

Pro Arg Val Val Xaa Gly Glu Glu Ala Ser Val Asp Ser Trp Pro Trp  
195 200 205

Gln Val Ser Ile Gln Tyr Xaa Lys  
210 215

<210> 4811

<211> 139

<212> PRT

<213> Homo sapiens

<400> 4811

Ser Ser Asn Thr Phe Arg Leu Gln Val Gln Thr Gln Glu Ser Lys Ala  
1 5 10 15

Gln Lys Glu Leu Glu Arg Gln Leu Ile Met Gln Ser Glu Met Arg Glu  
20 25 30

Arg Gln Met Ala Met Gln Ile Ala Trp Ser Arg Glu Phe Leu Lys Tyr  
35 40 45

Phe Gly Thr Phe Phe Gly Leu Ala Ala Ile Ser Leu Thr Ala Gly Ala  
50 55 60

Ile Lys Lys Lys Lys Pro Ala Phe Leu Val Pro Ile Val Pro Leu Ser  
65 70 75 80

Phe Ile Leu Thr Tyr Gln Tyr Asp Leu Gly Tyr Gly Thr Leu Leu Glu



4369

	85		90		95
Arg Met Lys Gly Glu Ala Glu Asp Ile Leu Glu Thr Glu Lys Ser Lys					
	100		105		110
Leu Gln Leu Pro Arg Gly Met Ile Thr Phe Glu Ser Ile Glu Lys Ala					
	115		120		125
Arg Lys Glu Gln Ser Arg Phe Phe Ile Asp Lys					
	130		135		

&lt;210&gt; 4812

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4812

Gly Arg Phe Ala Pro Ser Pro Pro Pro Ala Leu Pro Gly Asn Pro Leu					
1		5		10	15
Lys Met Arg Pro Pro Val Leu Arg Glu Pro Gly Ala Pro Ala Ser Ala					
	20		25		30
Pro Ala Gln Pro Leu Pro Gly Ala Asp Pro Gly Trp Asp Phe Gly Gly					
	35		40		45
Pro Ser Leu Ser Pro Leu Arg Glu Asn Arg Pro Gly Arg Cys Gly Glu					
	50		55		60
Gly Pro Arg Ala Ile Leu Ala Gly Gly Ala Gly Arg Arg Thr Arg Ala					
65		70		75	80
Arg Arg Pro Ser Pro Ala Arg Thr Ser Ser Arg Gln Ser Ser Gly Lys					
	85		90		95
Gly Ser Leu Phe Phe Ser Leu Gly Lys Ile Lys Ser Pro Arg Glu Asn					
	100		105		110
Lys Ala Gly Lys Gly Ala Pro Phe Leu					
	115		120		

&lt;210&gt; 4813

&lt;211&gt; 364

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

## 4370

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (250)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4813

Asp	Gly	Gly	Xaa	Xaa	Thr	Gln	Trp	Ala	Xaa	Glu	Phe	Pro	Phe	Asp	Val
1				5					10					15	

Asp	Ala	Leu	Phe	Pro	Glu	Arg	Ile	Thr	Val	Leu	Asp	Gln	His	Leu	Arg
		20					25						30		

Pro	Pro	Ala	Arg	Arg	Pro	Gly	Thr	Thr	Thr	Pro	Ala	Arg	Val	Asp	Leu
		35				40						45			

Gln	Gln	Gln	Ile	Met	Thr	Ile	Ile	Asp	Glu	Leu	Gly	Lys	Ala	Ser	Ala
	50					55					60				

Lys	Ala	Gln	Asn	Leu	Ser	Ala	Pro	Ile	Thr	Ser	Ala	Ser	Arg	Met	Gln
65				70						75					80

Ser	Asn	Arg	His	Val	Val	Tyr	Ile	Leu	Lys	Asp	Ser	Ser	Ala	Arg	Pro
			85						90					95	

Ala	Gly	Lys	Gly	Ala	Ile	Ile	Gly	Phe	Ile	Lys	Val	Gly	Tyr	Lys	Lys
			100				105						110		

Leu	Phe	Val	Leu	Asp	Asp	Arg	Glu	Ala	His	Asn	Glu	Val	Glu	Pro	Leu
		115				120						125			

Cys	Ile	Leu	Asp	Phe	Tyr	Ile	His	Glu	Ser	Val	Gln	Arg	His	Gly	His
	130					135						140			

Gly	Arg	Glu	Leu	Phe	Gln	Tyr	Met	Leu	Gln	Lys	Glu	Arg	Val	Glu	Pro
145					150					155					160

His	Gln	Leu	Ala	Ile	Asp	Arg	Pro	Ser	Gln	Lys	Leu	Leu	Lys	Phe	Leu
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165

175

BNSDOCID: &lt;WO 0122920A2 I &gt;

4372

Ala Gly Phe Glu Ile Ser Ala Met Gln Met Phe Asn Met Asp Arg Val  
           35                                  40                                  45

Asn Val Glu Glu Phe Tyr Glu Val Tyr Lys Gly Val Val Thr Glu Tyr  
           50                                  55                                  60

His Asp Met Val Thr Glu Met Tyr Ser Gly Pro Cys Val Ala Met Glu  
       65                                  70                                  75                                  80

Ile Gln Gln Asn Asn Ala Thr Lys Thr Phe Arg Glu Phe Cys Gly Pro  
                                   85                                  90                                  95

Ala Asp Pro Glu Ile Ala Arg His Leu Arg Pro Gly Thr Leu Arg Ala  
                   100                                  105                                  110

Ile Phe Gly Lys Thr Lys Ile Gln Asn Ala Val His Cys Thr Asp Leu  
           115                                  120                                  125

Pro Glu Asp Gly Leu Leu Glu Val Gln Tyr Phe Phe Lys Ile Leu Asp  
       130                                  135                                  140

Asn  
 145

<210> 4815

<211> 404

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4815

Gln Asn Val Ile Met Phe Val Gly Leu Gln Gly Ser Gly Xaa Thr Thr  
       1                                  5                                  10                                  15

Thr Cys Ser Lys Leu Ala Tyr Tyr Tyr Gln Arg Lys Gly Trp Lys Thr  
                   20                                  25                                  30

Cys Leu Ile Cys Ala Asp Thr Phe Arg Ala Gly Ala Phe Asp Gln Leu  
       35                                  40                                  45

Lys Gln Asn Ala Thr Lys Ala Arg Ile Pro Phe Tyr Gly Ser Tyr Thr  
       50                                  55                                  60

Glu Met Asp Pro Val Ile Ile Ala Ser Glu Gly Val Glu Lys Phe Lys

4373

65		70		75		80
Asn Glu Asn Phe Glu Ile Ile Ile Val Asp Thr Ser Gly Arg His Lys						
	85		90		95	
Gln Glu Asp Ser Leu Phe Glu Glu Met Leu Gln Val Ala Asn Ala Ile						
	100		105		110	
Gln Pro Asp Asn Ile Val Tyr Val Met Asp Ala Ser Ile Gly Gln Ala						
	115		120		125	
Cys Glu Ala Gln Ala Lys Ala Phe Lys Asp Lys Val Asp Val Ala Ser						
	130		135		140	
Val Ile Val Thr Lys Leu Asp Gly His Ala Lys Gly Gly Gly Ala Leu						
	145		150		155	160
Ser Ala Val Ala Ala Thr Lys Ser Pro Ile Ile Phe Ile Gly Thr Gly						
	165		170		175	
Glu His Ile Asp Asp Phe Glu Pro Phe Lys Thr Gln Pro Phe Ile Ser						
	180		185		190	
Lys Leu Leu Gly Met Gly Asp Ile Glu Gly Leu Ile Asp Lys Val Asn						
	195		200		205	
Glu Leu Lys Leu Asp Asp Asn Glu Ala Leu Ile Glu Lys Leu Lys His						
	210		215		220	
Gly Gln Phe Thr Leu Arg Asp Met Tyr Glu Gln Phe Gln Asn Ile Met						
	225		230		235	240
Lys Met Gly Pro Phe Ser Gln Ile Leu Gly Met Ile Pro Gly Phe Gly						
	245		250		255	
Thr Asp Phe Met Ser Lys Gly Asn Glu Gln Glu Ser Met Ala Arg Leu						
	260		265		270	
Lys Lys Leu Met Thr Ile Met Asp Ser Met Asn Asp Gln Glu Leu Asp						
	275		280		285	
Ser Thr Asp Gly Ala Lys Val Phe Ser Lys Gln Pro Gly Arg Ile Gln						
	290		295		300	
Arg Val Ala Arg Gly Ser Gly Val Ser Thr Arg Asp Val Gln Glu Leu						
	305		310		315	320
Leu Thr Gln Tyr Thr Lys Phe Ala Gln Met Val Lys Lys Met Gly Gly						
	325		330		335	
Ile Lys Gly Leu Phe Lys Gly Gly Asp Met Ser Lys Asn Val Ser Gln						

## 4374

340                      345                      350  
 Ser Gln Met Ala Lys Leu Asn Gln Gln Met Ala Lys Met Met Asp Pro  
      355                      360                      365  
 Arg Val Leu His His Met Gly Gly Met Ala Gly Leu Gln Ser Met Met  
      370                      375                      380  
 Arg Gln Phe Gln Gln Gly Ala Ala Gly Asn Met Lys Gly Met Met Gly  
 385                      390                      395                      400  
 Phe Asn Asn Met

&lt;210&gt; 4816

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4816

Ser Leu Ile Ser Leu Tyr Phe Ser Phe Phe Val Cys Glu Tyr Tyr Pro  
      1                      5                      10                      15  
 Tyr Thr Thr Thr Pro Lys Thr Ser Glu Leu Phe Ala Leu Phe Phe His  
                          20                      25                      30  
 Thr Thr Trp Gly Arg Glu Pro Trp Glu Tyr Ala His Gly Ile Ile Ile  
                          35                      40                      45  
 His Ser Val Val Trp Lys Lys Lys Met Leu Thr Ser Ala Leu Glu Gly  
      50                      55                      60  
 Ser Tyr  
      65

&lt;210&gt; 4817

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4817

His Ala Ser Ala Asp Ala Trp Ala Asp Ala Trp Glu Lys Ser Cys Glu  
      1                      5                      10                      15  
 Glu Ile Asp Leu Asp Lys His Lys Ser Ile Gln Arg Lys Lys Thr Glu  
                          20                      25                      30

## 4375

Val Glu Ile Glu Thr Val His Val Ser Thr Glu Lys Leu Lys Asn Arg  
                   35                                  40                                  45

Lys Glu Lys Lys Ser Arg Asp Val Val Ser Lys Lys Glu Glu Arg Lys  
                   50                                  55                                  60

Arg Thr Lys Lys Lys Lys Glu Gln Gly Gln Glu Arg Thr Glu Glu Glu  
                   65                                  70                                  75                                  80

Met Leu Trp Asp Gln Ser Ile Leu Gly Phe  
                                   85                                  90

&lt;210&gt; 4818

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (126)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (139)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4818

Gly Gly Phe Leu His Pro Gln Pro Glu Arg Arg Pro Xaa Gly Pro Ala  
                   1                                  5                                  10                                  15

Pro Arg Lys Pro Pro Val Ala Arg Pro Arg Ser Gly Leu Gly Ser Pro  
                                   20                                  25                                  30

Gly Lys Arg Phe Gly Arg Ala His Gly Asp Cys Val Ser Gly Ala Gln  
                   35                                  40                                  45

Leu Cys Gly Cys Pro Ser Met Asp Asp Tyr Met Val Leu Arg Met Ile  
                   50                                  55                                  60

## 4376

Gly Glu Gly Ser Phe Gly Arg Ala Leu Leu Val Gln His Glu Ser Ser  
65 70 75 80

Asn Gln Met Phe Ala Met Lys Glu Ile Arg Leu Pro Lys Ser Phe Ser  
85 90 95

Asn Thr Gln Asn Ser Arg Lys Glu Ala Val Leu Leu Ala Lys Met Lys  
100 105 110

His Pro Asn Ile Xaa Ala Phe Lys Glu Ser Phe Glu Ala Xaa Gly His  
115 120 125

Leu Tyr Ile Val Met Glu Tyr Cys Asp Gly Xaa Asp Leu Met Gln Lys  
130 135 140

Ile Lys Gln Gln Lys Arg Lys Val Ile Ser  
145 150

<210> 4819

<211> 63

<212> PRT

<213> Homo sapiens

<400> 4819

Arg Leu His Arg Tyr Pro Glu Ala Met Ala Ser Lys Gly Leu Gln Asp  
1 5 10 15

Leu Lys Gln Gln Val Glu Gly Thr Ala Gln Glu Ala Ala Met Asp Gln  
20 25 30

Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys Thr Ala Asn Gln Ala  
35 40 45

Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly Leu Leu Lys  
50 55 60

<210> 4820

<211> 261

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids



4377

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (226)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4820

Val	Lys	Lys	Asp	Thr	Leu	Thr	Glu	Glu	Glu	Thr	Gln	Phe	Tyr	Ile	Ala
1				5					10					15	

Glu	Thr	Val	Leu	Ala	Ile	Asp	Ser	Ile	His	Gln	Leu	Gly	Phe	Ile	His
			20					25					30		

Arg	Asp	Ile	Lys	Pro	Asp	Asn	Leu	Leu	Leu	Asp	Ser	Lys	Gly	His	Val
		35					40					45			

Lys	Leu	Ser	Asp	Phe	Gly	Leu	Cys	Thr	Gly	Leu	Lys	Lys	Ala	His	Arg
	50					55					60				

Thr	Glu	Phe	Tyr	Arg	Asn	Leu	Asn	His	Ser	Leu	Pro	Ser	Asp	Phe	Thr
65					70					75					80

Phe	Gln	Asn	Met	Asn	Ser	Lys	Arg	Lys	Ala	Glu	Thr	Trp	Lys	Arg	Asn
				85					90					95	

Arg	Arg	Gln	Leu	Ala	Phe	Ser	Thr	Val	Gly	Thr	Pro	Asp	Tyr	Ile	Ala
			100					105					110		

Pro	Glu	Val	Phe	Met	Gln	Thr	Gly	Tyr	Asn	Lys	Leu	Cys	Asp	Trp	Trp
		115					120					125			

Ser	Leu	Gly	Val	Ile	Met	Tyr	Glu	Met	Leu	Ile	Gly	Tyr	Pro	Pro	Phe
	130					135					140				

Cys	Xaa	Glu	Thr	Pro	Gln	Glu	Thr	Tyr	Lys	Lys	Val	Met	Asn	Trp	Lys
145					150					155					160

Glu	Thr	Leu	Thr	Phe	Pro	Pro	Glu	Val	Pro	Ile	Ser	Glu	Lys	Ala	Lys
				165					170					175	

Asp	Leu	Ile	Leu	Arg	Phe	Cys	Cys	Glu	Trp	Glu	His	Arg	Ile	Gly	Ala
		180						185					190		

Pro	Gly	Val	Glu	Glu	Ile	Lys	Ser	Asn	Ser	Phe	Phe	Glu	Gly	Val	Asp
		195					200					205			

Trp	Glu	His	Ile	Arg	Glu	Arg	Pro	Ala	Ala	Ile	Ser	Ile	Glu	Ile	Lys
	210					215					220				

Ser	Xaa	Asp	Asp	Thr	Ser	Asn	Phe	Asp	Glu	Phe	Pro	Glu	Ser	Asp	Ile
225						230				235					240

## 4378

Leu Lys Pro Thr Asp Ala Phe Leu Gly Asp Thr Pro Pro His Pro Lys  
 245 250 255

Gly Ser Pro Ala Thr  
 260

<210> 4821

<211> 178

<212> PRT

<213> Homo sapiens

<400> 4821

Phe Arg Ala Leu His Arg Gly Ala Ala Leu Asp Leu Ser Pro Leu His  
 1 5 10 15

Arg Ser Pro His Pro Ser Arg Gln Ala Ile Phe Cys Trp Met Ser Phe  
 20 25 30

Ser Ala Tyr Gln Thr Ala Phe Ile Cys Leu Gly Leu Leu Val Gln Gln  
 35 40 45

Ile Ile Phe Phe Leu Gly Thr Thr Ala Leu Ala Phe Leu Val Leu Met  
 50 55 60

Pro Val Leu His Gly Arg Asn Leu Leu Leu Phe Arg Ser Leu Glu Ser  
 65 70 75 80

Ser Trp Pro Phe Trp Leu Thr Leu Ala Leu Ala Val Ile Leu Gln Asn  
 85 90 95

Met Ala Ala His Trp Val Phe Leu Glu Thr His Asp Gly His Pro Gln  
 100 105 110

Leu Thr Asn Arg Arg Val Leu Tyr Ala Ala Thr Phe Leu Leu Phe Pro  
 115 120 125

Leu Asn Val Leu Val Gly Ala Met Val Ala Thr Trp Arg Val Leu Leu  
 130 135 140

Ser Ala Leu Tyr Asn Ala Ile His Leu Gly Gln Met Asp Leu Ser Leu  
 145 150 155 160

Leu Pro Pro Arg Ala Ala Leu Ser Thr Pro Ala Thr Thr Arg Thr Glu  
 165 170 175

Thr Ser

4379

&lt;210&gt; 4822

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4822

Thr Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro  
 1 5 10 15

Pro Ile Phe Pro Val Asp Asn Ala Ile Asp Asn Xaa Lys Glu Ile Gln  
 20 25 30

Val Ala Leu Xaa Ile Leu Met Ala Ala Tyr Ala Met Ala Glu Ala Phe  
 35 40 45

Met Ser Thr Gly Val Gly Ala Ser Leu Ile Leu Ile Ala Leu Lys Val  
 50 55 60

Gly Ile Thr Ala Lys Thr Val Ala Val Ile Gly Ala Ile Val Thr Ser  
 65 70 75 80

Ile Leu Ser Ile Ala Thr Gly Thr Ser Trp Gly Thr Phe Ala Ala Cys  
 85 90 95

Ala Pro Ile Phe Leu Trp Leu Asn His Ile Val Gly Gly Asn Ile Leu  
 100 105 110

Leu Thr Thr Ala Ala Ile Ala Gly Gly Ala Cys Phe Gly Asp Asn Ile  
 115 120 125

Gly Leu Ile Ser Asp Thr Thr Ile Val Ser Ser Gly Ile Gln Lys Val  
 130 135 140

Glu Val Val Arg Arg Ile Arg His Gln Gly Val Trp Ser Ala Leu Val  
 145 150 155 160

Leu Leu Ser Gly Ile Ile Val Phe Ala Ile Val Gly Phe Thr Trp Ile  
 165 170 175

Tyr Pro

4380

<210> 4823  
<211> 40  
<212> PRT  
<213> Homo sapiens

<400> 4823  
Leu Cys Cys Phe Lys Tyr Leu Gly Asp Cys Phe Ile Ile Ser Ser Thr  
1 5 10 15  
Lys Lys Thr Phe Asn Phe Ala Ile Glu Thr Val Glu Leu Cys His Ala  
20 25 30  
Phe Ile Arg Ser Ser Ala Leu Cys  
35 40

<210> 4824  
<211> 69  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (69)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4824  
Thr Gln Leu Arg Glu Cys Leu Phe Arg Ala Trp Ser Cys Tyr Leu Tyr  
1 5 10 15  
Leu Lys Ser Ser His Pro Val Pro Cys Phe Arg Ala Gly Leu Gln Phe  
20 25 30  
His Cys Ser Phe Leu Lys Leu Leu Cys Pro Gln Leu Thr Leu Phe Xaa  
35 40 45  
Asn Val Val Phe His Trp Thr Gly Leu Leu Phe Leu Val Ser His Ala  
50 55 60  
Phe Gly Phe Tyr Xaa  
65

4381

&lt;210&gt; 4825

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4825

Val	Ser	Arg	Pro	Ala	Gly	Lys	Asp	Met	Met	Arg	Lys	Leu	Glu	Lys	His
1				5					10					15	

Met	Thr	Ala	Xaa	Lys	Gly	Pro	Met	Ile	Val	Leu	Val	Leu	Asp	Glu	Met
			20					25					30		

Asp	Gln	Leu	Asp	Ser	Lys	Xaa	Gln	Asp	Val	Leu	Tyr	Thr	Leu	Phe	Glu
	35						40					45			

Trp	Pro	Trp	Leu	Ser	Asn	Ser	His	Leu	Val	Leu	Ile	Gly	Ile	Ala	Asn
	50					55					60				

Thr	Leu	Asp	Leu	Thr	Asp	Arg	Ile	Leu	Pro	Arg	Leu	Gln	Ala	Arg	Glu
65					70					75					80

Lys	Cys	Lys	Pro	Gln	Leu	Leu	Asn	Phe	Pro	Pro	Tyr	Thr	Arg	Asn	Gln
				85					90					95	

Ile	Val	Thr	Ile	Leu	Gln	Asp	Arg	Leu	Asn	Gln	Val	Ser	Arg	Asp	Gln
		100						105					110		

Val	Leu	Asp	Asn	Ala	Ala	Val	Gln	Phe	Cys	Ala	Arg	Lys	Val	Ser	Ala
		115					120					125			

Val	Ser	Gly	Asp	Val	Arg	Lys	Ala	Leu	Asp	Val	Cys	Arg	Arg	Ala	Ile
	130					135					140				

Glu	Ile	Val	Glu	Ser	Asp	Val	Lys	Ser	Gln	Thr	Ile	Leu	Lys	Pro	Leu
145					150					155					160

Ser	Glu	Cys	Lys	Ser	Pro	Ser	Glu	Pro	Leu	Ile	Pro	Lys	Arg	Val	Gly
			165						170					175	

4382

Leu Ile His Ile Ser Gln Val Ile Ser Glu Val Asp Gly Asn Arg Met  
 180 185 190  
 Thr Leu Ser Gln Glu Gly Ala Gln Asp Ser Phe Pro Leu Gln Gln Lys  
 195 200 205  
 Ile Leu Val Cys Ser Leu Met Leu Leu Ile Arg Gln Leu Lys Ile Lys  
 210 215 220  
 Glu Val Thr Leu Gly Lys Leu Tyr Glu Ala Tyr Ser Lys Val Cys Arg  
 225 230 235 240  
 Lys Gln Gln Val Ala Ala Val Asp Gln Ser Glu Cys Leu Ser Leu Ser  
 245 250 255  
 Gly Leu Leu Glu Ala Arg Gly Ile Leu Gly Leu Lys Arg Asn Lys Glu  
 260 265 270  
 Thr Arg Leu Thr Lys Val Phe Phe Lys Ile Glu Glu Lys Glu Ile Glu  
 275 280 285  
 His Ala Leu Lys Asp Lys Ala Leu Ile Gly Asn Ile Leu Ala Thr Gly  
 290 295 300  
 Leu Pro  
 305

&lt;210&gt; 4826

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4826

Ala Ala Ala Gly Pro Gly Ala Cys Trp Ala Ser Pro Pro Arg Arg Leu  
 1 5 10 15

His Ala Pro Thr Ala Xaa Ser Thr Xaa Ser Phe Gln Ala Arg Gln Leu  
 20 25 30

4383

Leu Glu Lys Glu Phe Ser Asn Leu Ile Ser Leu Gly Thr Asp Arg Arg  
           35                          40                          45

Leu Asp Glu Asp Ser Ala Lys Ser Phe Ser Arg Ser Pro Ser Trp Arg  
           50                          55                          60

Lys Met Phe Arg Glu Lys Asp Leu Arg Gly Val Thr Pro Asp Ser Ala  
           65                          70                          75                          80

Glu Met Leu Pro Pro Asn Phe Arg Ser Ala Ala Ala Gly Ala Leu Gly  
                           85                          90                          95

Ser Pro Gly Leu Pro Leu Arg Lys Leu Gln Pro Glu Gly Gln Thr Ser  
                           100                          105                          110

Gly Ser Ser Arg Ala Asp Gly Val Ser Val Arg Thr Tyr Ser Cys  
           115                          120                          125

&lt;210&gt; 4827

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4827

Glu Ala Ala Asn Met Ile Leu Val Asp Asp Asp Phe Ser Ala Ile Met  
           1                          5                          10                          15

Asn Ala Val Glu Glu Gly Lys Gly Ile Phe Tyr Asn Ile Lys Asn Phe  
                           20                          25                          30

Val Arg Phe Gln Leu Ser Thr Ser Ile Ser Ala Leu Ser Leu Ile Thr  
           35                          40                          45

Leu Ser Thr Val Phe Asn Leu Pro Ser Pro Leu Asn Ala Met Gln Ile  
           50                          55                          60

Leu Trp Ile Asn Ile Ile Met Asp Gly Pro Pro Xaa Gln Arg  
           65                          70                          75

&lt;210&gt; 4828

&lt;211&gt; 61

4384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4828

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Asn Ile Val Cys Ser Asp Phe Ile Lys Asp Ile Phe Lys Ser Pro Ile
 1             5             10             15

Tyr Ser Arg Ile Phe Ser Tyr Asp Val Ile Tyr Glu Lys Asp Val Cys
          20             25             30

Thr Asn Arg Cys Cys Asn Thr Thr Val Val Gly Phe Tyr Cys Leu Val
          35             40             45

Ile Asn Val Tyr Asn Ile Ser Lys Gly Asn Tyr Val Leu
 50             55             60

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&lt;210&gt; 4829

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4829

```

Ala Leu Trp Gly Asp Ala Ser Gly Gln Ser Cys Leu Leu Ile Phe Ile
 1             5             10             15

Leu Arg Ala Ser Ala Leu Glu Xaa Leu Pro His Ala Phe Ser Val Asp
          20             25             30

His Ser Gly Pro Pro Val Gly Val Ala Cys Gln Ala Arg Thr Pro Pro
          35             40             45

Gly Gly Gln Ser Arg Asn Leu Arg Gly Ala Glu Thr Pro Phe Ile Ser
 50             55             60

Gly Cys His Arg Pro Glu Gln His Trp Ala Gly Cys Pro Leu Leu Thr
 65             70             75             80

Gly Trp Gln His Lys Asp Asn Met Ser Arg Gly Arg Arg Arg Arg Gly
          85             90             95

Ala Gln Ala Ala Gly His Ser Pro Ala Ala Pro Glu Ala Leu Ile Ser
          100             105             110

Asp His Gln Ala Met Thr Phe Leu Cys Ala Leu Gln Lys Ala Phe Asn

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4385

115	120	125
Cys Asp Gln Ala Val Cys Ser Asp Thr Leu Ser Gly Asp Phe		
130	135	140

&lt;210&gt; 4830

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (113)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (114)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4830

Gly Pro Arg His Ala Asp Phe Pro Cys Ser Ala Val Val Arg Lys Cys
1 5 10 15

## 4386

Leu Ala Ala Xaa Gly Arg Arg Arg Gly Arg Gln Thr Tyr Ser Arg Phe  
                   20                                  25                                  30  
 Gln Thr Leu Glu Leu Glu Lys Glu Phe Leu Phe Asn Pro Tyr Leu Thr  
                   35                                  40                                  45  
 Arg Lys Arg Arg Ile Glu Val Ser His Ala Leu Ala Xaa Thr Glu Arg  
                   50                                  55                                  60  
 Xaa Val Lys Ile Trp Phe Gln Asn Arg Arg Met Asn Gly Lys Xaa Lys  
                   65                                  70                                  75                                  80  
 Thr Thr Arg Gln Ile Ser Arg Phe Pro Ala Gly Gly Glu Gly Arg Gly  
                                   85                                  90                                  95  
 Asn Glu Lys Xaa Ser Pro Arg Ala Gly Gly Arg Gln Ser Arg Arg Pro  
                   100                                  105                                  110  
 Xaa Xaa Leu Thr Ser Thr Phe Lys Ile Tyr His Arg Leu Leu Lys Leu  
                   115                                  120                                  125  
 Ile Ile Thr Ile Cys Cys Gly His His Leu Phe Ser Leu Leu Glu Arg  
                   130                                  135                                  140  
 Thr Leu Pro Val Phe Gln Ala Thr Phe Met Ser Leu Leu Leu Arg Phe  
                   145                                  150                                  155                                  160  
 Ser Val Leu

&lt;210&gt; 4831

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4387

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4831

Glu Leu Lys Arg Leu Thr Ile Gly Lys Asn Xaa Xaa Arg Leu Thr Gly  
 1 5 10 15

Asn Arg Xaa Gly Ile Pro Gly Ser Thr His Ala Ser Glu Xaa Glu Val  
 20 25 30

Glu Glu Glu Gly Asp Val Asp Ser Asp Glu Glu Glu Glu Glu Asp Glu  
 35 40 45

Glu Ser Ser Ser Glu Gly Leu Glu Ala Glu Asp Trp Ala Gln Gly Val  
 50 55 60

Val Glu Ala Gly Gly Ser Phe Gly Ala Tyr Gly Ala Gln Glu Glu Ala  
 65 70 75 80

Gln Cys Pro Thr Leu His Phe Leu Glu Gly Gly Glu Asp Ser Asp Ser  
 85 90 95

Asp Ser Glu Glu Glu Asp Asp Glu Glu Glu Asp Asp Glu Asp Glu Asp  
 100 105 110

Asp Asp Asp Asp Glu Glu Asp Gly Asp Glu Val Pro Val Pro Ser Phe  
 115 120 125

Gly Glu Ala Met Ala Tyr Phe Ala Met Val Lys Arg Tyr Leu Thr Ser  
 130 135 140

Phe Pro Ile Asp Asp Arg Val Gln Ser His Ile Leu His Leu Glu His  
 145 150 155 160

Asp Leu Val His Val Thr Arg Lys Asn His Ala Arg Gln Ala Gly Val  
 165 170 175

Arg Gly Leu Gly His Gln Ser  
 180

&lt;210&gt; 4832

&lt;211&gt; 313

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4832

4388

Gly	Arg	Phe	Gln	Lys	Cys	Leu	Ala	Val	Gly	Met	Ser	His	Asn	Ala	Ile	1	5	10	15
Arg	Phe	Gly	Arg	Met	Pro	Gln	Ala	Glu	Lys	Glu	Lys	Leu	Leu	Ala	Glu	20	25	30	
Ile	Ser	Ser	Asp	Ile	Asp	Gln	Leu	Asn	Pro	Glu	Ser	Ala	Asp	Leu	Arg	35	40	45	
Ala	Leu	Ala	Lys	His	Leu	Tyr	Asp	Ser	Tyr	Ile	Lys	Ser	Phe	Pro	Leu	50	55	60	
Thr	Lys	Ala	Lys	Ala	Arg	Ala	Ile	Leu	Thr	Gly	Lys	Thr	Thr	Asp	Lys	65	70	75	80
Ser	Pro	Phe	Val	Ile	Tyr	Asp	Met	Asn	Ser	Leu	Met	Met	Gly	Glu	Asp	85	90	95	
Lys	Ile	Lys	Phe	Lys	His	Ile	Thr	Pro	Leu	Gln	Glu	Gln	Ser	Lys	Glu	100	105	110	
Val	Ala	Ile	Arg	Ile	Phe	Gln	Gly	Cys	Gln	Phe	Arg	Ser	Val	Glu	Ala	115	120	125	
Val	Gln	Glu	Ile	Thr	Glu	Tyr	Ala	Lys	Ser	Ile	Pro	Gly	Phe	Val	Asn	130	135	140	
Leu	Asp	Leu	Asn	Asp	Gln	Val	Thr	Leu	Leu	Lys	Tyr	Gly	Val	His	Glu	145	150	155	160
Ile	Ile	Tyr	Thr	Met	Leu	Ala	Ser	Leu	Met	Asn	Lys	Asp	Gly	Val	Leu	165	170	175	
Ile	Ser	Glu	Gly	Gln	Gly	Phe	Met	Thr	Arg	Glu	Phe	Leu	Lys	Ser	Leu	180	185	190	
Arg	Lys	Pro	Phe	Gly	Asp	Phe	Met	Glu	Pro	Lys	Phe	Glu	Phe	Ala	Val	195	200	205	
Lys	Phe	Asn	Ala	Leu	Glu	Leu	Asp	Asp	Ser	Asp	Leu	Ala	Ile	Phe	Ile	210	215	220	
Ala	Val	Ile	Ile	Leu	Ser	Gly	Asp	Arg	Pro	Gly	Leu	Leu	Asn	Val	Lys	225	230	235	240
Pro	Ile	Glu	Asp	Ile	Gln	Asp	Asn	Leu	Leu	Gln	Ala	Leu	Glu	Leu	Gln	245	250	255	
Leu	Lys	Leu	Asn	His	Pro	Glu	Ser	Ser	Gln	Leu	Phe	Ala	Lys	Leu	Leu	260	265	270	

## 4389

Gln Lys Met Thr Asp Leu Arg Gln Ile Val Thr Glu His Val Gln Leu  
 275 280 285

Leu Gln Val Ile Lys Lys Thr Glu Thr Asp Met Ser Leu His Pro Leu  
 290 295 300

Leu Gln Glu Ile Tyr Lys Asp Leu Tyr  
 305 310

<210> 4833

<211> 187

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4833

Lys Ser Gly Ile Leu Val Asn Asn Val Xaa Met Ser Tyr Glu Tyr Pro  
 1 5 10 15

Glu Tyr Phe Leu Asp Val Pro Asp Leu Asp Asn Val Ile Lys Lys Met  
 20 25 30

Ile Asn Ile Asn Ile Leu Ser Val Cys Lys Met Thr Gln Leu Val Leu  
 35 40 45

Pro Gly Met Val Glu Arg Ser Lys Gly Ala Ile Leu Asn Ile Ser Ser  
 50 55 60

Gly Ser Gly Met Leu Pro Val Pro Leu Leu Thr Ile Tyr Ser Ala Thr  
 65 70 75 80

Lys Thr Phe Val Asp Phe Phe Ser Gln Cys Leu His Glu Glu Tyr Arg  
 85 90 95

Ser Lys Gly Val Phe Val Gln Ser Val Leu Pro Tyr Phe Val Ala Thr  
 100 105 110

Lys Leu Ala Lys Ile Arg Lys Pro Thr Leu Asp Lys Pro Ser Pro Glu  
 115 120 125

Thr Phe Val Lys Ser Ala Ile Lys Thr Val Gly Leu Gln Ser Arg Thr  
 130 135 140

Asn Gly Tyr Leu Ile His Ala Leu Met Gly Ser Ile Ile Ser Asn Leu  
 145 150 155 160

4390

Pro Ser Trp Ile Tyr Leu Lys Ile Val Met Asn Met Asn Lys Ser Thr  
                     165                    170                    175

Arg Ala His Tyr Leu Lys Lys Thr Lys Lys Asn  
                     180                    185

&lt;210&gt; 4834

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4834

Ser Ile Glu Phe Ser Gly His Leu Phe Phe Pro Leu Pro Leu Leu Arg  
   1                    5                    10                    15

Pro Ser Pro Pro Leu Ile Ile Ile Gln Val Val Val Lys Ile Val Leu  
                     20                    25                    30

Leu Ser Asp Pro Phe Leu Val Trp Leu Phe Ile Pro Ser Glu Gln Val  
                     35                    40                    45

Asn Val Gly Ala Thr Ala Leu Val Ser Thr Val Ser Leu Thr Val Asn  
                     50                    55                    60

Glu Pro Pro Gly Val Ser Ser Lys Lys Arg Lys Gly Val Thr Gly Thr  
   65                    70                    75                    80

Thr Ala Leu Phe His Phe Ile Asn Cys Leu Phe Met Leu Pro Ala Gln  
                     85                    90                    95

Val Ser Thr

&lt;210&gt; 4835

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4835

Leu Arg Val Phe Leu Cys Val Phe Phe Tyr Phe Ala Trp Leu Phe Glu  
   1                    5                    10                    15

His Tyr Trp Thr Leu Val Leu Glu Gly Lys Thr Phe Gln Leu Tyr Ser  
                     20                    25                    30

His Asn Leu Ile Ala Leu Phe Glu His Ala Lys Lys Pro Gly Leu Ala

## 4391

35	40	45
Ala His Ile Gln Thr His Arg Phe Pro Asp Arg Ile Leu Pro Arg Lys		
50	55	60
Phe Ala Leu Thr Thr Lys Ile Pro Asp Thr Lys Gly Cys His Lys Cys		
65	70	75 80
Cys Ile Val Arg Asn Pro Tyr Thr Gly His Lys Tyr Leu Cys Gly Ala		
	85	90 95
Leu Gln Ser Gly Ile Val Leu Leu Gln Trp Tyr Glu Pro Met Gln Lys		
	100	105 110
Phe Met Leu Ile Lys His Phe Asp Phe Pro Leu Pro Ser Pro Leu Asn		
	115	120 125
Val Phe Glu Met Leu Val Ile Pro Glu Gln Glu Tyr Pro Met Val Cys		
	130	135 140
Val Ala Ile Ser Lys Gly Thr Glu Ser Asn Gln Val Val Gln Phe Glu		
	145	150 155 160
Thr Ile Asn Leu Asn Ser Ala Ser Ser Trp Phe Thr Glu Ile Gly Ala		
	165	170 175
Gly Ser Gln Gln Leu Asp Ser Ile His Val Thr Gln Leu Glu Arg Asp		
	180	185 190
Thr Val Leu Val Cys Leu Asp Lys Phe Val Lys Ile Val Asn Leu Gln		
	195	200 205
Gly Lys Leu Lys Ser Ser Lys Lys Leu Ala Ser Glu Leu Ser Phe Asp		
	210	215 220
Phe Arg Ile Glu Ser Val Val Cys Leu Gln Asp Ser Val Leu Ala Phe		
	225	230 235 240
Trp Lys His Gly Met Gln Gly Lys Ser Phe Lys Ser Asp Glu Val Thr		
	245	250 255
Gln Glu Ile Ser Asp Glu Thr Arg Val Phe Arg Leu Leu Gly Ser Asp		
	260	265 270
Arg Val Val Val Leu Glu Ser Arg Pro Thr Glu Asn Pro Thr Ala His		
	275	280 285
Ser Asn Leu Tyr Ile Leu Ala Gly His Glu Asn Ser Tyr		
	290	295 300

4392

&lt;210&gt; 4836

&lt;211&gt; 355

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (342)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (348)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (351)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (352)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4836

Phe	Pro	Gly	Ser	Gly	Asn	Met	Ala	Lys	Asp	Ala	Gly	Leu	Ile	Glu	Ala
1				5					10					15	

Asn	Gly	Glu	Leu	Lys	Val	Phe	Ile	Asp	Gln	Asn	Leu	Ser	Pro	Gly	Lys
			20					25					30		

Gly	Val	Val	Ser	Leu	Val	Ala	Val	His	Pro	Ser	Thr	Val	Asn	Pro	Leu
			35					40					45		

Gly	Lys	Gln	Leu	Leu	Pro	Lys	Thr	Phe	Gly	Gln	Ser	Asn	Val	Asn	Ile
	50					55					60				

Ala	Gln	Gln	Val	Val	Ile	Gly	Thr	Pro	Gln	Arg	Pro	Ala	Ala	Ser	Asn
65					70					75					80

Thr	Leu	Val	Val	Gly	Ser	Pro	His	Thr	Pro	Ser	Thr	His	Phe	Ala	Ser
				85					90					95	

Gln	Asn	Gln	Pro	Ser	Asp	Ser	Ser	Pro	Trp	Ser	Ala	Gly	Lys	Arg	Asn
			100					105					110		

Arg	Lys	Gly	Glu	Lys	Asn	Gly	Lys	Gly	Leu	Arg	His	Phe	Ser	Met	Lys
		115					120								125



## 4393

Val Cys Glu Lys Val Gln Arg Lys Gly Thr Thr Ser Tyr Asn Glu Val  
 130 135 140  
 Ala Asp Glu Leu Val Ala Glu Phe Ser Ala Ala Asp Asn His Ile Leu  
 145 150 155 160  
 Pro Asn Glu Ser Ala Tyr Asp Gln Lys Asn Ile Arg Arg Arg Val Tyr  
 165 170 175  
 Asp Ala Leu Asn Val Leu Met Ala Met Asn Ile Ile Ser Lys Glu Lys  
 180 185 190  
 Lys Glu Ile Lys Trp Ile Gly Leu Pro Thr Asn Ser Ala Gln Glu Cys  
 195 200 205  
 Gln Asn Leu Glu Val Glu Arg Gln Arg Arg Leu Glu Arg Ile Lys Gln  
 210 215 220  
 Lys Gln Ser Gln Leu Gln Glu Leu Ile Leu Gln Gln Ile Ala Phe Lys  
 225 230 235 240  
 Asn Leu Val Gln Arg Asn Arg His Ala Glu Gln Gln Ala Ser Arg Pro  
 245 250 255  
 Pro Pro Pro Asn Ser Val Ile His Leu Pro Phe Ile Ile Val Asn Thr  
 260 265 270  
 Ser Lys Lys Thr Val Ile Asp Cys Ser Ile Ser Asn Asp Lys Phe Glu  
 275 280 285  
 Tyr Leu Phe Asn Phe Asp Asn Thr Phe Glu Ile His Asp Asp Ile Glu  
 290 295 300  
 Val Leu Lys Arg Met Gly Met Ala Cys Gly Leu Glu Ser Gly Ser Cys  
 305 310 315 320  
 Ser Ala Glu Asp Leu Lys Met Ala Arg Ser Leu Val Pro Lys Ala Leu  
 325 330 335  
 Glu Pro Tyr Val Thr Xaa Met Ala Gln Gly Thr Xaa Gly Gly Xaa Xaa  
 340 345 350  
 Leu Cys Gln  
 355

&lt;210&gt; 4837

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4394

&lt;400&gt; 4837

Trp Ile Thr Tyr Gln Gly Phe Leu Ser Gln Trp Thr Leu Thr Thr Tyr  
 1 5 10 15  
 Leu Asp Val Gln Arg Cys Leu Glu Tyr Leu Gly Tyr Leu Gly Tyr Ser  
 20 25 30  
 Ile Leu Thr Glu Gln Glu Ser Gln Ala Ser Ala Val Thr Val Thr Arg  
 35 40 45  
 Asp Lys Lys Ile Asp Leu Gln Lys Lys Gln Thr Gln Arg Asn Val Phe  
 50 55 60  
 Arg Cys Asn Val Ile Gly Val Lys Asn Cys Gly Lys Ser Gly Val Leu  
 65 70 75 80  
 Gln Ala Leu Leu Gly Arg Asn Leu Met Arg Gln Lys Lys Ile Arg Glu  
 85 90 95  
 Asp His Lys Ser Tyr Tyr Ala Ile Asn Thr Val Tyr Val Tyr Gly Gln  
 100 105 110  
 Glu Lys Tyr Leu Leu Leu His Asp Ile Ser Glu Ser Glu Phe Leu Thr  
 115 120 125  
 Glu Ala Glu Ile Ile Cys Asp Val Val Cys Leu Val Tyr Asp Val Ser  
 130 135 140  
 Asn Pro Lys Ser Phe Glu Tyr Cys Ala Arg Ile Phe Lys Gln His Phe  
 145 150 155 160  
 Met Asp Ser Arg Ile Pro Cys Leu Ile Val Ala Ala Lys Ser Asp Leu  
 165 170 175  
 His Glu Val Lys Gln Glu Tyr Ser Ile Ser Pro Thr Asp Phe Cys Arg  
 180 185 190  
 Lys His Lys Met Pro Pro Pro Gln Ala Phe Thr Cys Asn Thr Ala Asp  
 195 200 205  
 Ala Pro Ser Lys Asp Ile Phe Val Lys Leu Thr Thr Met Ala Met Tyr  
 210 215 220  
 Pro His Val Thr Gln Ala Asp Leu Lys Ser Ser Thr Phe Trp Leu Arg  
 225 230 235 240  
 Ala Ser Phe Gly Ala Thr Val Phe Ala Val Leu Gly Phe Ala Met Tyr  
 245 250 255  
 Lys Ala Leu Leu Lys Gln Arg

4395

260

&lt;210&gt; 4838

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4838

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Gly Arg Met Asn Trp Thr Gly Leu Tyr Thr Leu Leu Ser Gly Val Asn
 1              5              10              15

Arg His Ser Thr Ala Ile Gly Arg Val Trp Leu Ser Val Ile Phe Ile
      20              25              30

Phe Arg Ile Met Val Leu Val Val Ala Ala Glu Ser Val Trp Gly Asp
      35              40              45

Glu Lys Ser Ser Phe Ile Cys Asn Thr Leu Gln Pro Gly Cys Asn Ser
      50              55              60

Val Cys Tyr Asp Gln Phe Phe Pro Ile Ser His Val Arg Leu Trp Ser
      65              70              75              80

Leu Gln Leu Ile Leu Val Ser Thr Pro Ala Leu Leu Val Ala Met His
      85              90              95

Val Ala His Gln Gln His Ile Glu Lys Lys Met Leu Arg Leu Glu Gly
      100              105              110

His Gly Asp Pro Leu His Leu Glu Glu Val Lys Arg His Lys Val His
      115              120              125

Ile Ser Gly Thr Leu Trp Trp Thr Tyr Val Ile Ser Val Val Phe Arg
      130              135              140

Leu Leu Phe Glu Ala Val Phe Met Tyr Val Phe Tyr Leu Leu Tyr Pro
      145              150              155              160

Gly Tyr Ala Met Val Arg Leu Val Lys Cys Asp Val Tyr Pro Cys Pro
      165              170              175

Asn Thr Val Asp Cys Phe Val Ser Arg Pro Thr Glu Lys Thr Val Phe
      180              185              190

Thr Val Phe Met Leu Ala Ala Ser Gly Ile Cys Ile Ile Leu Asn Val
      195              200              205

Ala Glu Val Val Tyr Leu Ile Ile Arg Ala Cys Ala Arg Arg Ala Gln
      210              215              220

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4396

Arg Arg Ser Asn Pro Pro Ser Arg Lys Gly Ser Gly Phe Gly His Arg  
225 230 235 240

Leu Ser Pro Glu Tyr Lys Gln Asn Glu Ile Asn Lys Leu Leu Ser Glu  
245 250 255

Gln Asp Gly Ser Leu Lys Asp Ile Leu Arg Arg Ser Pro Gly Thr Gly  
260 265 270

Ala Gly Leu Ala Glu Lys Ser Asp Arg Cys Ser Ala Cys  
275 280 285

&lt;210&gt; 4839

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4839

Gly Gln Asp Gly Glu Thr Pro Ser Leu Leu Lys Ile Gln Arg Ile Ser  
1 5 10 15

Trp Ala Trp Trp Arg Ala Pro Val Ile Pro Ala Thr Arg Glu Ala Glu  
20 25 30

Ala Arg Glu Ser Leu Glu Pro Arg Arg Trp Arg Leu Gln  
35 40 45

&lt;210&gt; 4840

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4840

Arg Ala Glu Ser Val Pro Ala His Pro Cys Gly Phe Pro Ala Pro Leu  
1 5 10 15

Pro Pro Thr Arg Met Met Glu Ser Lys Met Ile Ala Ala Ile His Ser  
20 25 30

Ser Ser Ala Asp Ala Thr Ser Ser Ser Asn Tyr His Ser Phe Val Thr  
35 40 45

Ala Ser Ser Thr Ser Val Asp Asp Ala Leu Pro Leu Pro Leu Pro Val  
50 55 60

Pro Gln Pro Lys His Ala Ser Gln Lys Thr Val Tyr Ser Ser Phe Ala

4397

65		70		75		80									
Arg	Pro	Asp	Val	Thr	Thr	Glu	Pro	Phe	Gly	Pro	Asp	Asn	Cys	Leu	His
				85					90					95	
Phe	Asn	Met	Thr	Pro	Asn	Cys	Gln	Tyr	Arg	Pro	Gln	Ser	Val	Pro	Pro
			100					105					110		
His	His	Asn	Lys	Leu	Glu	Gln	His	Gln	Val	Tyr	Gly	Ala	Arg	Ser	Glu
		115					120					125			
Pro	Pro	Ala	Ser	Met	Gly	Leu	Arg	Tyr	Asn	Thr	Tyr	Val	Ala	Pro	Gly
		130				135					140				
Arg	Asn	Ala	Ser	Gly	His	His	Ser	Lys	Pro	Cys	Ser	Arg	Val	Glu	Tyr
145					150					155					160
Val	Ser	Ser	Leu	Ser	Ser	Ser	Val	Arg	Asn	Thr	Cys	Tyr	Pro	Glu	Asp
			165						170					175	
Ile	Pro	Pro	Tyr	Pro	Thr	Ile	Arg	Arg	Val	Gln	Ser	Leu	His	Ala	Pro
			180					185					190		
Pro	Ser	Ser	Met	Ile	Arg	Ser	Val	Pro	Ile	Ser	Arg	Thr	Glu	Val	Pro
		195					200					205			
Pro	Asp	Asp	Glu	Pro	Ala	Tyr	Cys	Pro	Arg	Pro	Leu	Tyr	Gln	Tyr	Lys
	210					215					220				
Pro	Tyr	Gln	Ser	Ser	Gln	Ala	Arg	Ser	Asp	Tyr	His	Val	Thr	Gln	Leu
225					230				235						240
Gln	Pro	Tyr	Phe	Glu	Asn	Gly	Arg	Val	His	Tyr	Arg	Tyr	Ser	Pro	Tyr
			245						250					255	
Ser	Ser	Ser	Ser	Ser	Ser	Tyr	Tyr	Ser	Pro	Asp	Gly	Ala	Leu	Cys	Asp
			260					265					270		
Val	Asp	Ala	Tyr	Gly	Gln	Ser	Ser								
	275					280									

&lt;210&gt; 4841

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

## 4398

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4841

Ala	Met	Lys	Asn	Asn	Asn	Ile	Lys	Pro	Tyr	Gly	Leu	Ile	Leu	Lys	Phe
1				5					10					15	
Ile	Ile	Leu	Ile	Gln	Lys	Leu	Pro	His	Thr	Lys	Val	Thr	Glu	Leu	Pro
			20					25					30		
Tyr	Val	Ser	His	Ile	Val	Xaa	Glu	His	Lys	Thr	Leu	Thr	Thr	Pro	Leu
		35					40					45			
Ile	Val	Ser	Thr	Leu	Phe	Cys	Lys	Tyr	Ser	Glu	Tyr	Phe	Gly	Phe	Ile
	50					55					60				
Leu	Ser	Arg	Ile	Phe	Val	Phe	Asn	Phe	Ala	Asn	Glu	Ile	Phe	Asn	Asn
65					70					75					80

<210> 4842

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4842

Pro	Ala	Lys	Gly	Lys	Lys	Lys	Cys	Ser	Pro	His	Ser	Cys	Lys	Gly	Leu
1				5					10					15	
Gln	Leu	Ala	Thr	Ala	Asn	Arg	Lys	Ile	Lys	Met	Ile	Glu	Pro	Phe	Gly
			20					25					30		
Asn	Gln	Tyr	Ile	Val	Ala	Arg	Pro	Val	Tyr	Ser	Thr	Asn	Ala	Phe	Glu
		35					40					45			
Glu	Asn	His	Lys	Lys	Thr	Gly	Arg	His	His	Lys	Thr	Phe	Leu	Asp	His
	50					55					60				
Leu	Lys	Val	Cys	Cys	Asn	Cys	Ser	Pro	Gln	Lys	Ala	Arg	Glu	Leu	Ser
65					70					75					80
Ser	Leu	Xaa	Phe	Pro											
				85											

4399

&lt;210&gt; 4843

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4843

Leu Ser Ala Cys Phe Ala Tyr His Arg Asp Ile Ser Met Ala Val Pro  
1 5 10 15

Pro Cys Arg Val Ala Tyr Gln Thr Asp Val Asp Cys Xaa Ile Ser Trp  
20 25 30

Gln His Gln Ser Met Gly Cys Leu Thr Phe Trp Tyr Leu Ser Ser Asp  
35 40 45

His Pro Tyr Pro Met Phe Ser Phe Lys His Tyr Pro Ala Ser Leu Phe  
50 55 60

Ile Ile Arg Asn Ser Gly Pro Ser Val Trp Trp His Leu Glu Ser Phe  
65 70 75 80

Val Pro

&lt;210&gt; 4844

&lt;211&gt; 430

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (397)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (417)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4400

&lt;222&gt; (429)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4844

Glu	Pro	Leu	Ile	Glu	Leu	Ser	Asn	Pro	Gly	Ala	Ser	Gly	Ser	Leu	Phe	1	5	10	15
Phe	Val	Thr	Ser	Asp	Asp	Glu	Phe	Ile	Ile	Lys	Thr	Val	Gln	His	Lys	20	25	30	
Glu	Ala	Glu	Phe	Leu	Gln	Lys	Leu	Leu	Pro	Gly	Tyr	Tyr	Met	Asn	Leu	35	40	45	
Asn	Gln	Asn	Pro	Arg	Thr	Leu	Leu	Pro	Lys	Phe	Tyr	Gly	Leu	Tyr	Cys	50	55	60	
Met	Gln	Ser	Gly	Gly	Ile	Asn	Ile	Arg	Ile	Val	Val	Met	Asn	Asn	Val	65	70	75	80
Leu	Pro	Arg	Ser	Met	Arg	Met	His	Phe	Thr	Tyr	Asp	Leu	Lys	Gly	Ser	85	90	95	
Thr	Tyr	Lys	Arg	Arg	Ala	Ser	Arg	Lys	Glu	Arg	Glu	Lys	Ser	Asn	Pro	100	105	110	
Thr	Phe	Lys	Asp	Leu	Asp	Phe	Leu	Gln	Asp	Met	His	Glu	Gly	Leu	Tyr	115	120	125	
Phe	Asp	Thr	Glu	Thr	Tyr	Asn	Ala	Leu	Met	Lys	Thr	Leu	Gln	Arg	Asp	130	135	140	
Cys	Arg	Val	Leu	Glu	Ser	Phe	Lys	Ile	Met	Asp	Tyr	Ser	Leu	Leu	Leu	145	150	155	160
Gly	Ile	His	Phe	Leu	Asp	His	Ser	Leu	Lys	Glu	Lys	Glu	Glu	Glu	Thr	165	170	175	
Pro	Gln	Asn	Val	Pro	Asp	Ala	Lys	Arg	Thr	Gly	Met	Gln	Lys	Val	Leu	180	185	190	
Tyr	Ser	Thr	Ala	Met	Glu	Ser	Ile	Gln	Gly	Pro	Gly	Lys	Ser	Gly	Asp	195	200	205	
Gly	Ile	Ile	Thr	Glu	Asn	Pro	Asp	Thr	Met	Gly	Gly	Ile	Pro	Ala	Lys	210	215	220	
Ser	His	Arg	Gly	Glu	Lys	Leu	Leu	Leu	Phe	Met	Gly	Ile	Ile	Asp	Ile	225	230	235	240
Leu	Gln	Ser	Tyr	Arg	Leu	Met	Lys	Lys	Leu	Glu	His	Ser	Trp	Lys	Ala	245	250	255	



## 4401

Leu Val Tyr Asp Gly Asp Thr Val Ser Val His Arg Pro Ser Phe Tyr  
 260 265 270

Ala Asp Arg Phe Leu Lys Phe Met Asn Ser Arg Val Phe Lys Lys Ile  
 275 280 285

Gln Ala Leu Lys Ala Ser Pro Ser Lys Lys Arg Cys Asn Ser Ile Ala  
 290 295 300

Ala Leu Lys Ala Thr Ser Gln Glu Ile Val Ser Ser Ile Ser Gln Glu  
 305 310 315 320

Trp Lys Asp Glu Lys Arg Asp Leu Leu Thr Glu Gly Gln Ser Phe Ser  
 325 330 335

Ser Leu Asp Glu Glu Ala Leu Gly Ser Arg His Arg Pro Asp Leu Val  
 340 345 350

Pro Ser Thr Pro Ser Leu Phe Glu Ala Ala Ser Leu Ala Thr Thr Ile  
 355 360 365

Ser Ser Ser Ser Leu Tyr Val Asn Glu His Tyr Pro His Asp Arg Pro  
 370 375 380

Thr Leu Tyr Phe Lys Gln Gln Arg Val Thr Phe Gln Xaa Gln His Phe  
 385 390 395 400

Thr Leu Gly Arg Gly Asp Leu Leu Leu Gly Pro Leu Gly Pro Asn Ile  
 405 410 415

Xaa Gly Ser Cys Arg Val Thr Leu Phe Leu Trp Phe Xaa Arg  
 420 425 430

<210> 4845

<211> 63

<212> PRT

<213> Homo sapiens

<400> 4845

Lys Ile Val Ser Phe Phe Phe Phe Tyr Arg Lys Leu Ser Leu Cys Asn  
 1 5 10 15

Ser Val Ser Phe Arg Phe Leu Ser Cys Phe Cys Lys Leu Trp Glu Arg  
 20 25 30

Leu Thr Met Gln Met Cys Gln Arg His Thr Val Gly Cys Asn Ile Asn  
 35 40 45

## 4402

Asn Phe Lys Cys Lys Phe Leu Trp Ile Asn Tyr Phe Tyr Ile Leu  
 50 55 60

<210> 4846

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4846

Ala Cys Pro Arg Pro Arg Thr Pro Asp Pro Ser His Pro Phe Gln Arg  
 1 5 10 15

Pro Arg Ala Arg Pro Trp Thr Glu Leu Leu Val Leu Cys Arg Glu Thr  
 20 25 30

Ile Gln Pro Lys Leu Trp Glu Ala Gln Ser Ile Glu Trp Ala Glu Ala  
 35 40 45

Ala Gly Ala Glu Pro Gly Arg Val Leu Gly Val His Pro Ser Leu Arg  
 50 55 60

Arg Gln Val Pro Gln Gly Pro Thr His Leu Lys Pro Ala Cys Thr Val  
 65 70 75 80

Glu Val Val Glu Val Asp Thr Pro Arg Gly Phe Ser Lys Ala Arg Leu  
 85 90 95

Ala Ala Pro Cys Ser Gly Lys Leu Asn Tyr Ser Arg Phe Arg Ser Ser  
 100 105 110

Val Asp Ser His Gln Ser Gly Gly Val Leu Lys Glu Phe Tyr Val Asp  
 115 120 125

<210> 4847

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4847

His Glu Leu Thr Asp Ala Ala Ser Ile Ala Ala Ala Arg Gly Glu Met  
 1 5 10 15

Ser Glu Val Arg Pro Leu Ser Arg Asp Ile Leu Met Glu Thr Leu Leu  
 20 25 30

4403

Tyr Glu Gln Leu Leu Glu Pro Pro Thr Met Glu Val Leu Gly Met Thr  
           35                          40                          45  
 Asp Ser Glu Glu Asp Leu Asp Pro Met Glu Asp Phe Asp Ser Leu Glu  
           50                          55                          60  
 Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Arg Leu Ala Cys Ile Gly  
           65                          70                          75                          80  
 Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu Ala Gln Leu Ser  
                           85                          90                          95  
 Glu Val Ala Met His Ser Leu Gly Leu Ala Phe Ile Tyr Asp Gln Thr  
                           100                          105                          110  
 Glu Asp Ile Arg Asp Val Leu Arg Ser Phe Met Asp Gly Phe Thr Thr  
           115                          120                          125  
 Leu Lys Glu Asn Ile Met Arg Phe Trp Arg Ser Pro Asn Pro Gly Ser  
           130                          135                          140  
 Trp Val Ser Cys Glu Gln Val Leu Leu Ala Leu Leu Leu Leu Ala  
           145                          150                          155                          160  
 Leu Leu Leu Pro Leu Leu Ser Gly Gly Leu His Leu Leu Leu Lys  
                           165                          170                          175

&lt;210&gt; 4848

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4848

Ser Thr Leu Arg Ile Pro Gly Pro Cys Phe Pro Ser Glu Lys Thr His  
           1                          5                          10                          15  
 Asn His Asp Pro Gln Pro Gly Asp Pro Asn Ser Arg Pro Ser Ser Pro  
                           20                          25                          30  
 Lys Pro Ala Gln Pro Ala Leu Lys Met Gln Val Leu Tyr Glu Phe Glu  
           35                          40                          45  
 Ala Arg Asn Pro Arg Glu Leu Thr Val Val Gln Gly Glu Lys Leu Glu  
           50                          55                          60  
 Val Leu Asp His Ser Lys Arg Trp Trp Leu Val Lys Asn Glu Ala Gly  
           65                          70                          75                          80

## 4404

Arg Ser Gly Tyr Ile Pro Ser Asn Ile Leu Glu Pro Leu Gln Pro Gly  
                     85                    90                    95  
 Thr Pro Gly Thr Gln Gly Gln Ser Pro Ser Arg Val Pro Met Leu Arg  
                     100                    105                    110  
 Leu Ser Ser Arg Pro Glu Glu Val Thr Asp Trp Leu Gln Ala Glu Asn  
                     115                    120                    125  
 Phe Ser Thr Ala Thr Val Arg Thr Leu Gly Ser Leu Thr Gly Ser Gln  
                     130                    135                    140  
 Leu Leu Arg Ile Arg Pro Gly Glu Leu Gln Met Leu Cys Pro Gln Glu  
 145                    150                    155                    160  
 Ala Pro Arg Ile Leu Ser Arg Leu Glu Ala Val Arg Arg Met Leu Gly  
                     165                    170                    175  
 Ile Ser Pro

&lt;210&gt; 4849

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4849

Leu Arg Arg Ser Gly Leu Ser Arg Asp Ala Thr Leu Thr Cys Leu Val  
   1                    5                    10                    15  
 Pro Ser Ala Ala Phe Gly Cys Ala Gly Lys Leu Arg Arg Gln Trp Pro  
                     20                    25                    30  
 Arg Asp Pro Ala Cys Leu Arg Arg Pro Arg Leu Asp Ala Lys Glu Leu  
                     35                    40                    45  
 Gln His Pro Gly Asp Lys Met Pro Thr Gly Lys Gln Leu Ala Asp Ile  
                     50                    55                    60  
 Gly Tyr Lys Thr Phe Ser Thr Ser Met Met Leu Leu Thr Val Tyr Gly  
   65                    70                    75                    80  
 Gly Tyr Leu Cys Ser Val Arg Val Tyr His Tyr Phe Gln Trp Arg Arg  
                     85                    90                    95  
 Ala Gln Arg Gln Ala Ala Glu Glu Gln Lys Thr Ser Gly Ile Met  
                     100                    105                    110

4405

&lt;210&gt; 4850

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4850

Pro Met Gly Arg Arg Leu Trp Arg Leu Leu Leu Ser Pro Gln Leu Pro  
 1 5 10 15

Ala Gly Gly Thr Val Ser Pro Phe Pro Gln Gly Thr Trp Leu Ser Gly  
 20 25 30

Gly Asn Ala His Phe Pro Gly Leu Asp Cys Gln Leu Phe Leu Ala Gly  
 35 40 45

Glu Glu Pro Cys Leu Ser Ala Pro Glu Pro Thr Val Arg Gly Xaa Ser  
 50 55 60

Arg Leu Gln Pro Leu Ala Gln Ser Gln Gln Pro Ala Lys His Thr Glu  
 65 70 75 80

Gly Asp Cys His Leu Pro Leu Pro Ala Ala Glu Pro Gln Arg Ser Asp  
 85 90 95

Gly Ser Tyr Thr Gly Gln Gly Phe Leu Leu Gly Ile Thr Ser His Arg  
 100 105 110

Asn Gln

&lt;210&gt; 4851

&lt;211&gt; 319

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4851

Arg Ala Tyr Lys Pro Ser Arg Val Leu Arg Glu Leu Gln Leu Asp Lys  
 1 5 10 15

Asp Ser Val Trp His Gly Cys Gly Glu Val Leu Lys Ala Lys Tyr Lys  
 20 25 30

Gly Lys Ser Tyr Arg Ala Thr Val Glu Ile Val Lys Thr Ala Asp Arg

## 4406

35					40					45					
Val	Thr	Glu	Phe	Cys	Arg	Gln	Thr	Cys	Ile	Lys	Leu	Glu	Cys	Cys	Pro
50						55					60				
Asn	Leu	Phe	Gly	Pro	Arg	Met	Val	Leu	Asp	Lys	Cys	Ser	Glu	Asn	Cys
65					70					75					80
Ser	Val	Leu	Thr	Lys	Thr	Lys	Tyr	Thr	His	Tyr	Tyr	Gly	Lys	Lys	Lys
				85					90					95	
Asn	Lys	Arg	Ile	Gly	Arg	Pro	Pro	Gly	Gly	His	Ser	Asn	Leu	Ala	Cys
			100					105					110		
Ala	Leu	Lys	Lys	Ala	Ser	Lys	Arg	Arg	Lys	Arg	Arg	Lys	Asn	Val	Phe
		115					120					125			
Val	His	Lys	Lys	Lys	Arg	Ser	Ser	Ala	Ser	Val	Asp	Asn	Thr	Pro	Ala
	130					135					140				
Gly	Ser	Pro	Gln	Gly	Ser	Gly	Gly	Glu	Asp	Glu	Asp	Asp	Pro	Asp	Glu
145					150				155						160
Gly	Asp	Asp	Asp	Ser	Leu	Ser	Glu	Gly	Ser	Thr	Ser	Glu	Gln	Gln	Asp
				165				170					175		
Glu	Leu	Gln	Glu	Glu	Ser	Glu	Met	Ser	Glu	Lys	Lys	Ser	Cys	Ser	Ser
			180					185					190		
Ser	Pro	Thr	Gln	Ser	Glu	Ile	Ser	Thr	Ser	Leu	Pro	Pro	Asp	Arg	Gln
		195					200					205			
Arg	Arg	Lys	Arg	Glu	Leu	Arg	Thr	Phe	Ser	Phe	Ser	Asp	Asp	Glu	Asn
	210					215					220				
Lys	Pro	Pro	Ser	Pro	Lys	Glu	Ile	Arg	Ile	Glu	Val	Ala	Glu	Arg	Leu
225					230					235					240
His	Leu	Asp	Ser	Asn	Pro	Leu	Lys	Trp	Ser	Val	Ala	Asp	Val	Val	Arg
				245					250					255	
Phe	Ile	Arg	Ser	Thr	Asp	Cys	Ala	Pro	Leu	Ala	Arg	Ile	Phe	Leu	Asp
			260					265					270		
Gln	Glu	Ile	Asp	Gly	Gln	Ala	Leu	Leu	Leu	Leu	Thr	Leu	Pro	Thr	Val
	275						280					285			
Gln	Glu	Cys	Met	Asp	Leu	Lys	Leu	Gly	Pro	Ala	Ile	Lys	Leu	Cys	His
	290					295					300				
His	Ile	Glu	Arg	Ile	Lys	Phe	Ala	Phe	Tyr	Glu	Gln	Phe	Ala	Asn	

4407

305

310

315

&lt;210&gt; 4852

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4852

Leu Pro Pro His His Pro Pro His Leu Phe Ser Gly Arg Val Gly Ile

1

5

10

15

Ala Ala Gly Gly Asp Phe Gly Ser Leu Ala Thr Pro Ala Arg Thr Ala

20

25

30

Gly Gln Pro Leu Cys Gly Asp Ala Trp Cys Pro Ile Cys Arg Pro Ser

35

40

45

Glu Glu Cys Thr Ala Phe Thr Phe Tyr Cys Val Arg Val His Pro Asp

50

55

60

Cys Ser Ile Gln Lys Ser Phe Phe Phe Pro His Arg Gln Ser Gly Asn

65

70

75

80

Asp Ser Phe Pro Asp Cys Phe Cys Leu Val Pro Gly Asn Leu Glu Ser

85

90

95

Ile Pro Gln

&lt;210&gt; 4853

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4853

Asp Pro Ser Ile Leu Glu Thr Asn Ala Pro Leu Lys Ser Asn Ile Tyr

1

5

10

15

Thr Ala Val Asn Ile Cys Lys Val Ser Met Phe Asn Ser Leu Arg Ile

20

25

30

Leu Arg Ile Met Asp Leu Leu Ala Lys Ile Pro Leu Lys Gln Leu Ser

35

40

45

His Ile Ser Asn Phe Tyr Leu Gly Lys Gln Val

50

55

4408

&lt;210&gt; 4854

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4854

Asp Lys Ala Lys Gly Pro Leu Leu Ala Gly His Pro Cys Pro Ile Phe  
 1 5 10 15

Ser Pro Gly Pro Phe Pro Cys Gly His Arg Glu Val Trp Pro Glu Tyr  
 20 25 30

Pro Thr Pro Ala Pro Leu His Pro Glu Leu Gly Ala Thr Ser Glu Val  
 35 40 45

Ser Ser Leu Ser Glu His Ala Phe Pro Cys Ser Xaa Arg Gly Met Ser  
 50 55 60

Arg Leu Ser Asp Ala Gly Ala Glu Arg Pro Gly Arg Lys Gly Val Gln  
 65 70 75 80

Pro Val Val Cys Lys Ala Leu Val Gly Thr Cys  
 85 90

&lt;210&gt; 4855

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4855

Arg Arg Phe Cys Ser Asn Asn Arg Asp Gln Arg Val Asn Gln Ile Trp  
 1 5 10 15

Phe Ser Cys Tyr Asn Cys Met Ile Gln Arg Gln Phe Asn His Pro Lys  
 20 25 30

Phe Pro Trp Pro Pro Gln Ser Arg Pro Ala Ile Arg Phe Leu Leu Gln  
 35 40 45

Val Gly Val Asn Leu His Phe Glu Ser Cys Gly Ser Phe Gly Asp Leu  
 50 55 60



## 4409

Val Leu Phe Tyr Phe Ala Leu Leu Ile Lys Glu Leu Val Glu Lys Lys  
 65 70 75 80

Lys Lys Lys Thr

<210> 4856

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4856

Val Asn Ser Arg Arg Gly Gly Lys Arg Ser Cys Arg Gly Gly Lys Asn  
 1 5 10 15

Lys Pro Val Pro Thr Thr Glu Thr Pro Asn His Leu Ser Pro Val Asp  
 20 25 30

Gly Pro Ala Lys Thr Ser Thr Gln Gln Asp Tyr Arg Gly Arg Asn Pro  
 35 40 45

Lys Cys Trp Cys Gly Arg Ser Lys Thr Trp Gly Glu Phe Leu Asp Leu  
 50 55 60

Glu Leu Arg Ala Met Gly Leu Asp Met Thr Gly Thr Asn Ser Cys His  
 65 70 75 80

Met Phe Met Val Arg Cys His Thr Phe Ser Ala Val Leu Phe His Gln  
 85 90 95

Tyr Leu Pro Gly Lys Gln Arg Met Cys  
 100 105

<210> 4857

<211> 165

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

## 4410

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (145)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4857

Arg	Phe	Thr	Ala	Ser	Ser	Ser	Ser	Gly	Met	Val	Pro	Lys	Leu	Pro	Ala
1				5					10				15		

Gly	Lys	Met	Asn	Asn	Arg	Asp	Leu	Lys	Pro	Gln	Pro	Asp	Ile	Val	Leu
			20					25					30		

Leu	Pro	Leu	Pro	Thr	Ala	Tyr	Glu	Leu	Asp	Ser	Thr	Lys	Leu	Lys	Ser
		35					40					45			

Pro	Leu	Ile	Thr	Ser	Pro	Met	Phe	Arg	Asn	Val	Pro	Thr	Ala	Asn	Pro
	50					55					60				

Thr	Glu	Pro	Gly	Ile	Arg	Arg	Val	Pro	Gly	Ala	Ser	Xaa	Val	Ile	Arg
65					70					75					80

Glu	Ser	Ser	Ser	Thr	Thr	Gly	Met	Val	Val	Gly	Ile	Val	Ala	Ala	Ala
				85					90					95	

Ala	Leu	Cys	Ile	Leu	Ile	Leu	Leu	Tyr	Ala	Met	Tyr	Lys	Tyr	Arg	Asn
			100					105						110	

Arg	Asp	Glu	Gly	Ser	Tyr	Gln	Val	Asp	Glu	Thr	Arg	Asn	Tyr	Ile	Ser
		115					120					125			

Asn	Ser	Ala	Gln	Ser	Asn	Gly	Thr	Leu	Met	Lys	Gly	Glu	Ser	Ser	Xaa
		130				135					140				

Xaa	Arg	Arg	Ala	Gly	His	Lys	Lys	Pro	Glu	Lys	Thr	Xaa	Gly	Gln	Gly
145					150					155					160

Lys	Tyr	Leu	Thr	Trp
				165

&lt;210&gt; 4858

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4411

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4858

Ser	Leu	Ala	Lys	His	Leu	Asn	His	Leu	Ser	Ile	Leu	Ser	Trp	Xaa	Ile
1				5					10					15	

Ile	Ile	Lys	Ala	Gln	Asn	Asn	Leu	Leu	Leu	Glu	Asn	Met	Cys	Phe	Xaa
			20					25					30		

Asn	Glu	Xaa	Lys	Xaa	Ile	Lys	Lys	Xaa	Lys	Lys	Gly	Ala	Ala	Gly	Leu
		35					40					45			

&lt;210&gt; 4859

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4859

Glu	Gly	Met	Gly	His	Thr	Ser	Pro	Arg	Ala	Asp	Pro	Ala	Gly	Gly	Ser
1				5					10					15	

Pro	Gly	Ala	Gly	Ser	Cys	Arg	Pro	Gly	Ala	Gly	Pro	Cys	His	Pro	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

20                      25                      30

Lys Ala Val Ala Gly Ala  
85

Gln Ser Pro Gly Ser Lys Ala Phe Gln Arg Ile Leu Ile Asp His Cys  
115 120 125

## 4413

Gly Pro Arg Thr Pro Ser Pro Leu Cys Ser Ser Gln Pro Pro Gly Gly  
 130 135 140

<210> 4861

<211> 595

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (392)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (393)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (571)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4861

Leu Ile Gln Asn Val Thr Gln Asn Asp Thr Gly Phe Tyr Thr Leu His  
 1 5 10 15

Val Ile Lys Ser Asp Leu Val Asn Glu Glu Ala Thr Gly Gln Phe Arg  
 20 25 30

Val Tyr Pro Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys  
 35 40 45

Pro Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr  
 50 55 60

Gln Asp Ala Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val  
 65 70 75 80

Ser Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe  
 85 90 95

Asn Val Thr Arg Asn Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn  
 100 105 110

Pro Val Ser Ala Arg Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr

4414

115	120	125
Gly Pro Asp Ala Pro Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser 130 135 140		
Gly Glu Asn Leu Asn Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala 145 150 155 160		
Gln Tyr Ser Trp Phe Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu 165 170 175		
Leu Phe Ile Pro Asn Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys 180 185 190		
Gln Ala His Asn Ser Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr 195 200 205		
Ile Thr Val Tyr Ala Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn 210 215 220		
Ser Asn Pro Val Glu Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro 225 230 235 240		
Glu Ile Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu 245 250 255		
Pro Val Ser Pro Arg Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr 260 265 270		
Leu Leu Ser Val Thr Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile 275 280 285		
Gln Asn Glu Leu Ser Val Asp His Ser Asp Pro Val Ile Leu Asn Val 290 295 300		
Leu Tyr Gly Pro Asp Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr 305 310 315 320		
Arg Pro Gly Val Asn Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro 325 330 335		
Pro Ala Gln Tyr Ser Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr 340 345 350		
Gln Glu Leu Phe Ile Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr 355 360 365		
Thr Cys Gln Ala Asn Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val 370 375 380		
Lys Thr Ile Thr Val Ser Ala Xaa Xaa Pro Lys Pro Ser Ile Ser Ser		

385				390				395				400				
Asn	Asn	Ser	Lys	Pro	Val	Glu	Asp	Lys	Asp	Ala	Val	Ala	Phe	Thr	Cys	
405				410				415								
Glu	Pro	Glu	Ala	Gln	Asn	Thr	Thr	Tyr	Leu	Trp	Trp	Val	Asn	Gly	Gln	
420				425				430								
Ser	Leu	Pro	Val	Ser	Pro	Arg	Leu	Gln	Leu	Ser	Asn	Gly	Asn	Arg	Thr	
435				440				445								
Leu	Thr	Leu	Phe	Asn	Val	Thr	Arg	Asn	Asp	Ala	Arg	Ala	Tyr	Val	Cys	
450				455				460								
Gly	Ile	Gln	Asn	Ser	Val	Ser	Ala	Asn	Arg	Ser	Asp	Pro	Val	Thr	Leu	
465				470				475				480				
Asp	Val	Leu	Tyr	Gly	Pro	Asp	Thr	Pro	Ile	Ile	Ser	Pro	Pro	Asp	Ser	
485				490				495								
Ser	Tyr	Leu	Ser	Gly	Ala	Asn	Leu	Asn	Leu	Ser	Cys	His	Ser	Ala	Ser	
500				505				510								
Asn	Pro	Ser	Pro	Gln	Tyr	Ser	Trp	Arg	Ile	Asn	Gly	Ile	Pro	Gln	Gln	
515				520				525								
His	Thr	Gln	Val	Leu	Phe	Ile	Ala	Lys	Ile	Thr	Pro	Asn	Asn	Asn	Gly	
530				535				540								
Thr	Tyr	Ala	Cys	Phe	Val	Ser	Asn	Leu	Ala	Thr	Gly	Arg	Asn	Asn	Ser	
545				550				555				560				
Ile	Val	Lys	Ser	Ile	Thr	Val	Ser	Ala	Ser	Xaa	Thr	Ser	Pro	Gly	Leu	
565				570				575								
Ser	Ala	Gly	Ala	Thr	Val	Gly	Ile	Met	Ile	Gly	Val	Leu	Val	Gly	Val	
580				585				590								
Ala	Leu	Ile														
595																

<220>  
<221> SITE  
<222> (26)

## 4416

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4862

Pro	Val	Arg	Asn	Ser	Arg	Val	Asp	Pro	Arg	Val	Arg	Ala	Leu	Lys	Glu
1				5				10						15	

Val	Phe	Lys	Glu	Tyr	Leu	Ile	Glu	Leu	Xaa	Xaa	Leu	Gln	His	Phe	Gln
			20					25					30		

Gly	Asn	Met	Met	Asp	Phe	Leu	Ala	Phe	Lys	Glu	Arg	Leu	Tyr	Gly	Pro
		35					40					45			

Leu	Gln	Ala	Tyr	Leu	Arg	Gln	Asn	Asp	Leu	Asp	Ile	Glu	Glu	Glu	Glu
	50					55					60				

Glu	Glu	His	Phe	Glu	Val	Ile	Asn	Asp	Glu	Val	Lys	Val	Val	Ala	Arg
65					70					75					80

Lys	His	Gly	Gln	Pro	Gly	Thr	Pro	Val	Ala	Ile	Ala	Thr	Xaa	Xaa	Pro
				85					90					95	

Pro	Arg	Thr	Ser	Ala	Ala	Phe	Pro	Ala	Gln	Gln	Gln	Pro	Leu	Gln	Val
			100					105					110		

Leu	Ser	Asp	Gly	Ser	Thr	Val	Gln	Leu	Pro	Arg	Leu	Ser	Ser	Leu	Gly
		115					120					125			

Phe	Glu	Asp	Ser	Met	Cys
					130

<210> 4863

<211> 209

<212> PRT

<213> Homo sapiens



4417

&lt;400&gt; 4863

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Leu Val Pro Arg Pro Arg Pro Arg Gln Leu Cys Ala Val Ile His Ser
 1              5              10              15

Leu Leu Arg Pro Gly Ala Pro Phe Pro Ala Arg Arg Arg Ala Arg Gln
      20              25              30

Leu Gly Val Gln Arg Pro Arg Asn His Glu Gln Val Ser Arg Ser Ser
      35              40              45

Glu Ala Pro Gly Thr Pro Ala His Ala Met Ala Asp Ser Glu Arg Leu
      50              55              60

Ser Ala Pro Gly Cys Trp Ala Ala Cys Thr Asn Phe Ser Arg Thr Arg
      65              70              75              80

Lys Gly Ile Leu Leu Phe Ala Glu Ile Ile Leu Cys Leu Val Ile Leu
      85              90              95

Ile Cys Phe Ser Ala Ser Thr Pro Gly Tyr Ser Ser Leu Ser Val Ile
      100              105              110

Glu Met Ile Leu Ala Ala Ile Phe Phe Val Val Tyr Met Cys Asp Leu
      115              120              125

His Thr Lys Ile Pro Phe Ile Asn Trp Pro Trp Ser Asp Phe Phe Arg
      130              135              140

Thr Leu Ile Ala Ala Ile Leu Tyr Leu Ile Thr Ser Ile Val Val Leu
      145              150              155              160

Val Glu Arg Gly Asn His Ser Lys Ile Val Ala Gly Val Leu Gly Leu
      165              170              175

Ile Ala Thr Cys Leu Phe Gly Tyr Asp Ala Tyr Val Thr Phe Pro Val
      180              185              190

Arg Gln Pro Arg His Thr Ala Ala Pro Thr Asp Pro Ala Asp Gly Pro
      195              200              205

Val

```

&lt;210&gt; 4864

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4418

&lt;400&gt; 4864

Val Cys Val Arg Val Arg Gly Arg Asn Arg Ser Ala Arg Ser Leu Pro  
 1 5 10 15  
 Leu Glu Gln Cys Leu Pro Gln Tyr Phe Cys Arg Gly Lys Asp Arg Asn  
 20 25 30  
 Ser Leu Leu Gly Phe Leu Gln Ser Pro Cys Thr Cys Gln Ser Phe Ser  
 35 40 45  
 Tyr Gln Cys Lys Gly Asn Pro Glu Leu Arg Phe Glu Leu Ser His His  
 50 55 60  
 Leu His Gly Gln Ile Ser Pro Leu Pro Lys Gly Ser Phe Arg Leu Trp  
 65 70 75 80  
 Val Tyr Leu Phe Leu His Ala Ser Ser Trp Gln Cys Pro Val Glu Ala  
 85 90 95  
 Tyr Leu Pro Ile Cys Val Cys Ile His Ser Leu Lys Thr Thr Arg Gln  
 100 105 110  
 Lys Lys Lys Lys Lys Thr Arg Gly Gly Ala Arg Tyr Pro Ile Arg Ala  
 115 120 125  
 Ile

&lt;210&gt; 4865

&lt;211&gt; 316

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4865

Cys Met Asp Phe Gly Val Leu Val Pro Thr Ala Tyr Met Phe Trp Gly  
 1 5 10 15  
 Leu Leu Ser Cys Ser Leu Pro Thr Phe Cys Val Met Ser Val Pro Gly  
 20 25 30  
 Arg Trp Pro Pro Ala Arg Trp Arg Leu Ser Ile Leu Ala Val Ser Ile  
 35 40 45  
 Met Pro Cys Val Cys Leu Ala Ser Leu Leu Gln Ile Leu Trp Thr Arg  
 50 55 60  
 Ser Ser Ser Pro Ala His His Leu Ala Ser Pro Phe Leu Cys Val Gln  
 65 70 75 80

## 4419

Ile Trp Gln Cys Gly Gly Val Leu Glu Thr His Pro Cys Ser His Val  
                             85                            90                            95  
 Gly His Val Phe Pro Lys Gln Ala Pro Tyr Ser Arg Asn Lys Ala Leu  
                             100                            105                            110  
 Ala Asn Ser Val Arg Ala Ala Glu Val Trp Met Asp Glu Phe Lys Glu  
                             115                            120                            125  
 Leu Tyr Tyr His Arg Asn Pro Arg Ala Arg Leu Glu Pro Phe Gly Asp  
                             130                            135                            140  
 Val Thr Glu Arg Lys Gln Leu Arg Asp Lys Leu Gln Cys Lys Asp Phe  
                             145                            150                            155                            160  
 Lys Trp Phe Leu Glu Thr Val Tyr Pro Glu Leu His Val Pro Glu Asp  
                             165                            170                            175  
 Arg Pro Gly Phe Phe Gly Met Leu Gln Asn Lys Gly Leu Thr Asp Tyr  
                             180                            185                            190  
 Cys Phe Asp Tyr Asn Pro Pro Asp Glu Asn Gln Ile Val Gly His Gln  
                             195                            200                            205  
 Val Ile Leu Tyr Leu Cys His Gly Met Gly Gln Asn Gln Phe Phe Glu  
                             210                            215                            220  
 Tyr Thr Ser Gln Lys Glu Ile Arg Tyr Asn Thr His Gln Pro Glu Gly  
                             225                            230                            235                            240  
 Cys Ile Ala Val Glu Ala Gly Met Asp Thr Leu Ile Met His Leu Cys  
                             245                            250                            255  
 Glu Glu Thr Ala Pro Glu Asn Gln Lys Phe Ile Leu Gln Glu Asp Gly  
                             260                            265                            270  
 Ser Leu Phe His Glu Gln Ser Lys Lys Cys Val Gln Ala Ala Arg Lys  
                             275                            280                            285  
 Glu Ser Ser Asp Ser Phe Val Pro Leu Leu Arg Asp Cys Thr Asn Ser  
                             290                            295                            300  
 Asp His Gln Lys Trp Phe Phe Lys Glu Arg Met Leu  
                             305                            310                            315

&lt;210&gt; 4866

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4420

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4866

Lys Ala Arg Arg Arg Gly Thr Met Ala Ala Ala Asp Glu Arg Ser  
 1 5 10 15

Pro Glu Asp Gly Glu Asp Glu Glu Glu Glu Gln Leu Val Leu Val  
 20 25 30

Glu Leu Ser Gly Ile Ile Asp Ser Xaa Phe Leu Ser Lys Cys Glu Asn  
 35 40 45

Lys Cys Lys Val Leu Gly Ile Asp Thr Glu Arg Pro Ile Leu Gln Val  
 50 55 60

Asp Ser Cys Val Phe Ala Gly Glu Tyr Glu Asp Thr Leu Gly Thr Cys  
 65 70 75 80

Val Ile Phe Glu Glu Asn Val Glu His Ala Asp Thr Glu Gly Asn Asn  
 85 90 95

Lys Thr Val Leu Lys Tyr Lys Cys His Thr Met Lys Lys Leu Ser Met  
 100 105 110

Thr Arg Thr Leu Leu Thr Glu Lys Lys Glu Gly Glu Glu Asn Ile Gly  
 115 120 125

Gly Val Glu Trp Leu Gln Ile Lys Asp Asn Asp Phe Ser Tyr Arg Pro  
 130 135 140

Asn Met Ile Cys Asn Phe Leu His Glu Asn Glu Asp Glu Glu Val Val  
 145 150 155 160

Ala Ser Ala Pro Asp Lys Ser Leu Glu Leu Glu Glu Glu Ile Gln  
 165 170 175

Met Asn Asp Ser Ser Asn Leu Ser Cys Glu Gln Glu Lys Pro Met His  
 180 185 190

Leu Glu Ile Glu Asp Ser Gly Pro Leu Ile Asp Ile Pro Ser Glu Thr  
 195 200 205

Glu Gly Ser Val Phe Met Glu Thr Gln Met Leu Pro  
 210 215 220

4421

&lt;210&gt; 4867

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4867

Lys Thr Leu Phe Thr Tyr Ser Phe His Gly Tyr Asn Thr Leu Ala Asp  
 1 5 10 15

Phe Leu Leu Ala Leu Gly Ala Met Ile Leu Ile Thr Phe Cys Lys Val  
 20 25 30

Thr Asn Val Ile His Ser Thr Leu Cys Gly Ser His Leu Phe Arg Leu  
 35 40 45

Met Cys Phe Gly Glu Arg Lys Lys Phe Leu Ala Glu Tyr Tyr Phe Glu  
 50 55 60

Leu Ser Arg Thr Leu Ser His Gln Arg Gln Phe Phe Ser Val Gln Phe  
 65 70 75 80

Pro Ile Pro Asp Asn Leu Leu Lys  
 85

&lt;210&gt; 4868

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4868

Ser Leu Ile Cys Tyr Val Gln Ser Leu Lys Ala Thr Thr His Phe Phe  
 1 5 10 15

Leu Lys Val Asp Ala Phe Ser Ala Val Leu Glu Ser Val Phe Cys Phe  
 20 25 30

Trp Gln Glu Ser Cys Lys Leu Cys Ile Leu Lys Gln Met Gln Lys Val  
 35 40 45

Val Leu Cys Lys Thr Phe Val Phe Cys Leu Ser Gln Ile Asn Ile Leu  
 50 55 60

&lt;210&gt; 4869

&lt;211&gt; 66

4422

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4869

Met	Cys	Arg	Leu	Cys	Ile	Cys	Val	Asn	Ile	Tyr	Thr	Pro	Arg	Cys	His
1				5					10					15	

Ser	Lys	Cys	Leu	Glu	Ile	Thr	Val	His	Thr	Cys	Xaa	Leu	Pro	Ser	Ser
			20					25					30		

Leu	Glu	Leu	Leu	Ser	Cys	Asn	Met	Ala	Leu	Lys	Asn	Tyr	Pro	Ile	Ser
		35					40					45			

Xaa	Val	Leu	Cys	Leu	Gly	Asn	Met	Val	Asn	Trp	Arg	Ile	Leu	Thr	His
	50					55					60				

Ser	Val
	65

&lt;210&gt; 4870

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4870

Arg	His	Leu	Leu	Ile	His	Gly	Leu	Tyr	Arg	Asn	Glu	Ala	Gly	Cys	Asn
1				5					10					15	

Thr	Asn	Leu	Glu	Ser	Pro	Ser	Trp	Arg	Thr	Ile	Lys	Leu	Phe	Lys	Asp
			20					25					30		

His	Pro	Trp	Pro	Gly	Thr	Val	Val	His	Thr	Cys	Asn	Pro	Ser	Thr	Leu
		35				40						45			

Gly	Gly	Leu	Gly	Arg	Gln	Thr	Glu	Leu	Arg	Ser	Leu	Arg	Pro	Ala	Trp
	50				55						60				

Ala	Thr	Trp	Gln	Lys	Pro	Thr	Ser	Thr	Lys	Ser	Thr	Lys	Ile	Ser	Arg
65					70					75					80

4423

Ala

&lt;210&gt; 4871

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4871

Ala	Gly	Gln	Arg	His	Ser	Pro	Trp	Pro	Leu	Ile	Ala	Leu	Leu	Val	Arg
1				5					10					15	

Ala	Asp	Gly	Xaa	Pro	Arg	Ser	Val	Val	Pro	Ala	Trp	Xaa	Thr	Glu	Ala
		20						25					30		

Pro	Xaa	Ala	Thr	Leu	Glu	Xaa	Arg	Phe	Thr	Pro	His	Ala	Glu	Met	Asp
		35					40					45			

Leu	Gly	Gln	Leu	Ser	Ser	Gln	Asp	Val	Gly	Gln	Ala	Ser	Phe	Lys	Tyr
	50					55					60				

Phe	Gln	Ser	Ala	Glu	Glu	Ala	Lys	Arg	Ala	Ile	Glu	Ala	Val	Leu	Ser
65					70					75				80	

Ala	Asp	Pro	Arg	Ser	Val	Tyr	Arg	Arg	Lys	Leu	Cys	Gln	Asp	Arg	Leu
				85					90					95	

Phe	Tyr	Phe	Thr	Val	Asp	Ile	Ala	His	Val	Thr	Cys	Trp	Phe	Gly	Asp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4424

100	105	110
Gly Phe Ala Glu Val Leu Arg Ile Lys Pro Ala Ser Glu Pro Val His		
115	120	125
Met Thr Gly Pro Val Gly Ser Leu Val Ser Leu Gly Ser		
130	135	140

&lt;210&gt; 4872

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4872

Val Ser Val Gly Gly Leu Ile Xaa Asn Leu Ile Gly Ile Cys Ala Phe		
1	5	10
Ser His Ala His Ser His Ala His Gly Ala Ser Gln Gly Ser Cys His		
20	25	30
Ser Ser Asp His Ser His Ser His His Met His Gly His Ser Asp His		
35	40	45
Gly His Gly His Ser His Gly Ser Ala Gly Gly Gly Met Asn Ala Asn		
50	55	60
Met Arg Gly Val Phe Leu His Val Leu Ala Asp Thr Leu Gly Ser Ile		
65	70	75
Gly Val Ile Val Ser Thr Val Leu Ile Glu Gln Phe Gly Trp Phe Ile		
85	90	95
Ala Asp Pro Leu Cys Ser Leu Phe Ile Ala Ile Leu Ile Phe Leu Ser		
100	105	110
Val Val Pro Leu Ile Lys Asp Ala Cys Gln Val Leu Leu Leu Arg Leu		
115	120	125
Pro Pro Glu Tyr Glu Lys Glu Leu His Ile Ala Leu Glu Lys Ile Gln		
130	135	140
Lys Ile Glu Gly Leu Ile Ser Tyr Arg Asp Pro His Phe Trp Arg His		
145	150	155
		160



## 4425

Ser Ala Ser Ile Val Ala Gly Thr Ile His Ile Gln Val Thr Ser Asp  
                                 165                                170                                175

Val Leu Glu Gln Arg Ile Val Gln Gln Val Thr Gly Ile Leu Lys Asp  
                                 180                                185                                190

Ala Gly Val Asn Asn Leu Thr Ile Gln Val Glu Lys Glu Ala Tyr Phe  
                                 195                                200                                205

Gln His Met Ser Gly Leu Ser Thr Gly Phe His Asp Val Leu Ala Met  
                                 210                                215                                220

Thr Lys Gln Met Glu Ser Met Lys Tyr Cys Lys Asp Gly Thr Tyr Ile  
                                 225                                230                                235                                240

Met

&lt;210&gt; 4873

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (176)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4873

Ser Phe Gly Glu Arg Ala Pro Ser Thr Arg Ser Gly Asp Pro Leu Val  
           1                                5                                10                                15

Ala Val Leu Pro Thr Arg Thr Arg Val Pro Gln Ala Ser Arg Cys Pro  
                                 20                                25                                30

Ala Gly Ser Ser Cys Pro Thr Pro Gly Ala Arg Pro Pro Ala Ser Pro  
                                 35                                40                                45

Gly Pro Leu Pro Arg Pro Ser Ser Arg Arg Ala Arg Ser Met Ala Pro  
                                 50                                55                                60

Pro Gln Val Leu Ala Phe Gly Leu Leu Leu Ala Ala Ala Thr Ala Thr  
                                 65                                70                                75                                80

Phe Ala Ala Ala Gln Glu Glu Cys Val Cys Glu Asn Tyr Lys Leu Ala  
                                 85                                90                                95

Val Asn Cys Phe Val Asn Asn Asn Arg Gln Cys Gln Cys Thr Ser Val  
                                 100                                105                                110

## 4426

Gly Ala Gln Asn Thr Val Ile Cys Ser Lys Leu Ala Ala Lys Cys Leu  
 115 120 125  
 Val Met Lys Ala Glu Met Asn Gly Ser Lys Leu Gly Arg Arg Ala Lys  
 130 135 140  
 Pro Glu Gly Ala Leu Gln Asn Asn Asp Gly Leu Tyr Asp Pro Asp Cys  
 145 150 155 160  
 Asp Glu Ser Gly Leu Phe Lys Ala Lys Gln Cys Asn Gly Thr Ser Xaa  
 165 170 175  
 Cys Trp Cys Val Asn Thr Ala Gly Val Arg Arg Thr Asp Lys Asp Thr  
 180 185 190  
 Glu Ile Thr Cys Ser Glu Arg Val Arg Thr Tyr Trp Ile Ile Ile Glu  
 195 200 205  
 Leu Lys His Lys Ala Arg Glu Lys Pro Tyr Asp Ser Lys Ser Leu Arg  
 210 215 220  
 Thr Ala Leu Gln Lys Glu Ile Thr Thr Arg Tyr Gln Leu Asp Pro Lys  
 225 230 235 240  
 Phe Ile Thr Ser Ile Leu Tyr Glu Asn Asn Val Ile Thr Ile Asp Leu  
 245 250 255  
 Val Gln Asn Ser Ser Gln Lys Thr Gln Asn Asp Val Asp Ile Ala Asp  
 260 265 270  
 Val Ala Tyr Tyr Phe Glu Lys Asp Val Lys Gly Glu Ser Leu Phe His  
 275 280 285  
 Ser Lys Lys Met Asp Leu Thr Val Asn Gly Glu Gln Leu Asp Leu Asp  
 290 295 300  
 Pro Gly Gln Thr Leu Ile Tyr Tyr Val Asp Glu Lys Ala Pro Glu Phe  
 305 310 315 320  
 Ser Met Gln Gly Leu Lys Ala Gly Val Ile Ala Val Ile Val Val Val  
 325 330 335  
 Val Ile Ala Val Val Ala Gly Ile Val Val Leu Val Ile Ser Arg Lys  
 340 345 350  
 Lys Arg Met Ala Lys Tyr Glu Lys Ala Glu Ile Lys Glu Met Gly Glu  
 355 360 365  
 Met His Arg Glu Leu Asn Ala  
 370 375

4427

&lt;210&gt; 4874

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4874

Ile Asn Gln Gln Leu Ala Leu Tyr Ile Trp Lys Ser Cys Arg His Ser  
 1 5 10 15

Met Pro Ala Tyr Glu Ser Ser Leu Glu Trp Gly Cys Thr Leu Gln Arg  
 20 25 30

His Arg Gly Arg Ala Ala Lys Thr Met Arg Val Tyr Phe Phe His Gln  
 35 40 45

Cys Asp Leu Asn Val Arg His Arg Val Lys Gly Asp Tyr Phe Gly Ala  
 50 55 60

Val Lys Phe Asn Glu Tyr Pro Ala Gly Phe Trp Thr Cys His Trp Leu  
 65 70 75 80

Leu Ala Pro Leu Phe Cys Pro Ile Leu Leu Tyr Gly Met Gly Ala Ser  
 85 90 95

Ser Ser Asn Ala Cys Thr Leu Ile Val Ser  
 100 105

&lt;210&gt; 4875

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4875

Gln Ser Ala Met Ser Ser Arg Pro Leu Glu Ser Pro Pro Pro Tyr Arg  
 1 5 10 15

Pro Asp Glu Phe Lys Pro Asn His Tyr Ala Pro Ser Asn Asp Ile Tyr  
 20 25 30

Gly Gly Glu Met His Val Arg Pro Met Leu Ser Gln Pro Ala Tyr Ser  
 35 40 45

Phe Tyr Pro Glu Asp Glu Ile Leu His Phe Tyr Lys Trp Thr Ser Pro  
 50 55 60

Pro Gly Val Ile Arg Ile Leu Ser Met Leu Ile Ile Val Met Cys Ile

65	70	75	80
Ala Ile Phe Ala Cys Val Ala Ser Arg Leu Pro			
	85	90	

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4429

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4877

Lys Cys Trp Tyr Tyr Tyr Phe His Tyr Arg Ala Phe Gly Pro Leu Ile

1

5

10

15

Met Leu Arg Trp Ala Asp Pro Ser Xaa Phe Cys Xaa Arg Val Ile Leu

20

25

30

Gly Arg Val Phe Ser Ser Thr Val Lys Val Arg Gln Ser Gly Ser Val

35

40

45

Thr Gly Asp Trp Asp Ile Trp Asn Lys Leu Arg Trp Asp Thr His Ser

50

55

60

Glu Glu Arg Leu His Gly Ile Leu Trp Gly Thr Asn Tyr Cys Xaa Ile

65

70

75

80

Thr Ser Asp Val Asn Met Ala His

85

&lt;210&gt; 4878

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4878

Gly Thr Lys Leu Asp Gly His Gln Thr Gln Gly Phe Val Lys Ile Arg

1

5

10

15

Pro Pro Ile Pro Leu Thr Gly Ser Val Arg Cys Val Lys Leu Leu Ser

20

25

30

Pro Val His His Ala Ser Met Ser Pro Gln Asp Trp Asp Leu Ser Leu

35

40

45

Pro Gly Ser Leu Ser Leu Gly Ala Asp Met Glu Pro Ser Leu Arg Asp

50

55

60

Gln Val Asp Ala Glu Ala His Pro Val Arg Ala Pro Leu Leu Ala Pro

65

70

75

80

Phe Thr Leu Lys Leu Ile

85

&lt;210&gt; 4879

&lt;211&gt; 106

## 4430

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4879

Phe Cys Ser Trp Phe Ser Leu Gln Ala Leu Ala Lys Pro Cys Pro Arg  
 1 5 10 15

Ser Pro Gln Thr Leu Arg Ala His Asp Gln Lys Glu Lys Glu Ser Gln  
 20 25 30

Val Gly Glu Glu Gln Gly Pro Gln Leu His Ser Pro Pro Leu Xaa Pro  
 35 40 45

Glu Gly Pro Pro Trp Ala Ala Trp Asn Pro Leu Lys Leu Pro Pro Pro  
 50 55 60

Gln His Ser Ser Gly Ala Val Pro Gly Ser Ala Cys Ser Pro Trp Ala  
 65 70 75 80

Gly Ser Val Pro Ala Ala Pro Pro Ser Val Cys Tyr Leu Ile Tyr Trp  
 85 90 95

Asn Leu His Ser Gln Ala Leu Ala His Arg  
 100 105

&lt;210&gt; 4880

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4880

Asn Val Ala Cys Asn Thr Val Leu Pro Ala Lys Phe Ser Thr Phe Cys  
 1 5 10 15

Asn Leu Phe Tyr Phe Phe Gly Cys Lys Ala Phe Leu Leu Ser Ile Val  
 20 25 30

Ile Leu Tyr Met Phe Cys Pro Ser Cys Ile Val Met Phe Gln Ser Ile  
 35 40 45

Ile Gln Leu Trp Leu Leu Lys Ser Tyr Ser Cys Glu Asp Leu Pro Leu  
 50 55 60

Phe Leu Leu Asp Cys Phe Ser Val Leu Tyr

4431

65

70

&lt;210&gt; 4881

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4881

Cys Asn Leu Ala Lys Gly Val Ile Ser Ile Ser Phe Leu Lys Glu Glu  
 1 5 10 15

Glu Gln Glu Asp Glu Glu Glu Ile Asp Val Val Ser Val Glu Lys Arg  
 20 25 30

Gln Ala Pro Gly Lys Arg Ser Glu Ser Gly Ser Pro Ser Ala Gly Gly  
 35 40 45

His Ser Lys Pro Pro His Ser Pro Leu Val Leu Lys Arg Cys His Val  
 50 55 60

Ser Thr His Gln His Asn Tyr Ala Ala Pro Pro Ser Thr Arg Lys Asp  
 65 70 75 80

Tyr Pro Ala Ala Lys Arg Val Lys Leu Asp Ser Val Arg Val Leu Arg  
 85 90 95

Gln Ile Ser Asn Asn Arg Lys Cys Thr Ser Pro Arg Ser Ser Asp Thr  
 100 105 110

Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg Gln Arg  
 115 120 125

Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln Ile Pro  
 130 135 140

Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu Lys Lys  
 145 150 155 160

Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Glu Gln Lys Leu Ile  
 165 170 175

Ser Glu Glu Asp Leu Leu Arg Lys Arg Arg Glu Gln Leu Lys His Lys  
 180 185 190

Leu Glu Gln Leu Arg Asn Ser Cys Ala  
 195 200

4432

&lt;210&gt; 4882

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4882

Lys Gly Ile Val Arg Met Ser Leu Ser Ser Gly Ser Thr Thr Ala Val  
 1 5 10 15

Ser Tyr Leu Gly Pro Val Leu Ser Gln Gly Gly Trp Leu Val Lys Val  
 20 25 30

Met Cys Asp Leu Arg Arg Leu Ser Cys His Leu Pro His Val Asn Arg  
 35 40 45

Lys Gly Gly Ile Leu Pro Pro Pro Glu Tyr Thr Gly  
 50 55 60

&lt;210&gt; 4883

&lt;211&gt; 737

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (555)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (602)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4883

Pro Pro Arg Gly Leu Asp Pro Gly Ser Cys Cys Cys Cys Arg Cys Cys  
 1 5 10 15

Cys Pro Leu Arg Pro Gln Pro Pro Thr Gly Pro Gly Ala Ala Asp Pro  
 20 25 30

Val Asn Pro Glu Lys Leu Leu Val Ile Thr Val Ala Thr Ala Glu Thr  
 35 40 45

Glu Gly Tyr Leu Arg Phe Leu Arg Ser Ala Glu Phe Phe Asn Tyr Thr  
 50 55 60

Val Arg Thr Leu Gly Leu Gly Glu Glu Trp Arg Gly Gly Asp Val Ala  
 65 70 75 80



4433

Arg Thr Val Gly Gly Gly Gln Lys Val Arg Trp Leu Lys Lys Glu Met  
                                     85                                    90                                    95

Glu Lys Tyr Ala Asp Arg Glu Asp Met Ile Ile Met Phe Val Asp Ser  
                                     100                                    105                                    110

Tyr Asp Val Ile Leu Ala Gly Ser Pro Thr Glu Leu Leu Lys Lys Phe  
                                     115                                    120                                    125

Val Gln Ser Gly Ser Arg Leu Leu Phe Ser Ala Glu Ser Phe Cys Trp  
                                     130                                    135                                    140

Pro Glu Trp Gly Leu Ala Glu Gln Tyr Pro Glu Val Gly Thr Gly Lys  
                                     145                                    150                                    155                                    160

Arg Phe Leu Asn Ser Gly Gly Phe Ile Gly Phe Ala Thr Thr Ile His  
                                     165                                    170                                    175

Gln Ile Val Arg Gln Trp Lys Tyr Lys Asp Asp Asp Asp Asp Gln Leu  
                                     180                                    185                                    190

Phe Tyr Thr Arg Leu Tyr Leu Asp Pro Gly Leu Arg Glu Lys Leu Ser  
                                     195                                    200                                    205

Leu Asn Leu Asp His Lys Ser Arg Ile Phe Gln Asn Leu Asn Gly Ala  
                                     210                                    215                                    220

Leu Asp Glu Val Val Leu Lys Phe Asp Arg Asn Arg Val Arg Ile Arg  
                                     225                                    230                                    235                                    240

Asn Val Ala Tyr Asp Thr Leu Pro Ile Val Val His Gly Asn Gly Pro  
                                     245                                    250                                    255

Thr Lys Leu Gln Leu Asn Tyr Leu Gly Asn Tyr Val Pro Asn Gly Trp  
                                     260                                    265                                    270

Thr Pro Glu Gly Gly Cys Gly Phe Cys Asn Gln Asp Arg Arg Thr Leu  
                                     275                                    280                                    285

Pro Gly Gly Gln Pro Pro Pro Arg Val Phe Leu Ala Val Phe Val Glu  
                                     290                                    295                                    300

Gln Pro Thr Pro Phe Leu Pro Arg Phe Leu Gln Arg Leu Leu Leu Leu  
                                     305                                    310                                    315                                    320

Asp Tyr Pro Pro Asp Arg Val Thr Leu Phe Leu His Asn Asn Glu Val  
                                     325                                    330                                    335

Phe His Glu Pro His Ile Ala Asp Ser Trp Pro Gln Leu Gln Asp His  
                                     340                                    345                                    350

## 4434

Phe Ser Ala Val Lys Leu Val Gly Pro Glu Glu Ala Leu Ser Pro Gly  
 355 360 365  
 Glu Ala Arg Asp Met Ala Met Asp Leu Cys Arg Gln Asp Pro Glu Cys  
 370 375 380  
 Glu Phe Tyr Phe Ser Leu Asp Ala Asp Ala Val Leu Thr Asn Leu Gln  
 385 390 395 400  
 Thr Leu Arg Ile Leu Ile Glu Glu Asn Arg Lys Val Ile Ala Pro Met  
 405 410 415  
 Leu Ser Arg His Gly Lys Leu Trp Ser Asn Phe Trp Gly Ala Leu Ser  
 420 425 430  
 Pro Asp Glu Tyr Tyr Ala Arg Ser Glu Asp Tyr Val Glu Leu Val Gln  
 435 440 445  
 Arg Lys Arg Val Gly Val Trp Asn Val Pro Tyr Ile Ser Gln Ala Tyr  
 450 455 460  
 Val Ile Arg Gly Asp Thr Leu Arg Met Glu Leu Pro Gln Arg Asp Val  
 465 470 475 480  
 Phe Ser Gly Ser Asp Thr Asp Pro Asp Met Ala Phe Cys Lys Ser Phe  
 485 490 495  
 Arg Asp Lys Gly Ile Phe Leu His Leu Ser Asn Gln His Glu Phe Gly  
 500 505 510  
 Arg Leu Leu Ala Thr Ser Arg Tyr Asp Thr Glu His Leu His Pro Asp  
 515 520 525  
 Leu Trp Gln Ile Phe Asp Asn Pro Val Asp Trp Lys Glu Gln Tyr Ile  
 530 535 540  
 His Glu Asn Tyr Ser Arg Ala Leu Glu Gly Xaa Gly Ile Val Glu Gln  
 545 550 555 560  
 Pro Cys Pro Asp Val Tyr Trp Phe Pro Leu Leu Ser Glu Gln Met Cys  
 565 570 575  
 Asp Glu Leu Val Ala Glu Met Glu His Tyr Gly Gln Trp Ser Gly Gly  
 580 585 590  
 Arg His Glu Asp Ser Arg Leu Ala Gly Xaa Tyr Glu Asn Val Pro Thr  
 595 600 605  
 Val Asp Ile His Met Lys Gln Val Gly Tyr Glu Asp Gln Trp Leu Gln  
 610 615 620

## 4435

Leu Leu Arg Thr Tyr Val Gly Pro Met Thr Glu Ser Leu Phe Pro Gly  
 625                      630                      635                      640  
 Tyr His Thr Lys Ala Arg Ala Val Met Asn Phe Val Val Arg Tyr Arg  
                     645                      650                      655  
 Pro Asp Glu Gln Pro Ser Leu Arg Pro His His Asp Ser Ser Thr Phe  
                     660                      665                      670  
 Thr Leu Asn Val Ala Leu Asn His Lys Gly Leu Asp Tyr Glu Gly Gly  
                     675                      680                      685  
 Gly Cys Arg Phe Leu Arg Tyr Asp Cys Val Ile Ser Ser Pro Arg Lys  
                     690                      695                      700  
 Gly Trp Ala Leu Leu His Pro Gly Arg Leu Thr His Tyr His Glu Gly  
 705                      710                      715                      720  
 Leu Pro Thr Thr Trp Gly Thr Arg Tyr Ile Met Val Ser Phe Val Asp  
                     725                      730                      735  
 Pro

<210> 4884  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 4884  
 Glu Thr Thr Lys Glu Tyr His Glu Gly Ile Tyr Ala Pro Val Leu Ala  
   1                    5                    10                    15  
 Ile Ile Cys Leu Arg Arg Asn Leu Leu Asn Lys Ser Phe Tyr Pro Leu  
                     20                    25                    30  
 Thr Phe Thr Phe Ile Arg Pro Tyr Lys Arg Ser Asn Gly Asp Leu Lys  
                     35                    40                    45  
 Phe Phe Ser His Lys Ser Tyr Leu Phe Ser Ile Ser Ala Lys Ser Arg  
                     50                    55                    60  
 Ile Leu Ser Ser Lys Pro Lys Leu Thr  
   65                    70

<210> 4885  
 <211> 76

4436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4885

Arg	Lys	Lys	Pro	Ile	Tyr	Ile	Asn	Val	Xaa	Arg	Asp	Pro	Ile	Glu	Arg
1				5					10					15	

Leu	Val	Ser	Tyr	Tyr	Tyr	Phe	Leu	Arg	Xaa	Gly	Asp	Asp	Tyr	Arg	Pro
			20					25					30		

Gly	Leu	Arg	Arg	Arg	Lys	Gln	Gly	Asp	Lys	Lys	Thr	Phe	Asp	Glu	Cys
		35					40						45		

Val	Ala	Glu	Gly	Gly	Ser	Asp	Cys	Ala	Pro	Glu	Lys	Leu	Trp	Leu	Gln
	50					55					60				

Ile	Pro	Phe	Phe	Cys	Gly	His	Ser	Ser	Glu	Cys	Trp
65					70					75	

&lt;210&gt; 4886

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4886

Thr	Pro	Ala	Gly	Thr	Gly	Pro	Glu	Phe	Pro	Gly	Arg	Pro	Thr	Arg	Pro
1				5					10					15	

Lys	Glu	Glu	Gly	Gly	Lys	Pro	Gln	Met	Asn	Ser	Glu	Gly	Glu	Ile	Pro
			20					25					30		

Ser	Leu	Pro	Ser	Gly	Ser	Gln	Ser	Ala	Lys	Pro	Val	Ser	Gln	Pro	Arg
		35					40					45			

Lys	Ser	Thr	Gln	Pro	Asp	Val	Cys	Ala	Ser	Pro	Gln	Glu	Lys	Pro	Leu
50						55					60				

Arg	Thr	Leu	Phe	His	Gln	Pro	Glu	Glu	Glu	Ile	Glu	Asp	Gly	Gly	Leu
65					70					75					80

4437

Phe Ile Pro Met Glu Asp Lys Thr Met Lys Lys Val Arg Lys  
                     85                    90

&lt;210&gt; 4887

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4887

Ile Leu Asn Glu Lys Lys Xaa Leu Xaa Lys Lys Gly Gly Arg Ser Arg  
   1                    5                    10                    15

Gly Ser Lys Leu Thr Tyr Ala Cys Xaa Arg Arg His Ser Ser Ser Ile  
                     20                    25                    30

Val Ser Pro  
           35

&lt;210&gt; 4888

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

4438

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4888

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr  
 1 5 10 15  
 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Gly Thr Arg Tyr  
 20 25 30  
 Pro Gln Gly His Ser Asp Thr Thr Val Ala Ile Ser Thr Ser Thr Val  
 35 40 45  
 Leu Leu Cys Xaa Leu Ser Ala Val Ser Leu Leu Ala Cys Tyr Xaa Lys  
 50 55 60  
 Ser Arg Gln Thr Pro Pro Leu Ala Ser Val Glu Met Glu Ala Met Glu  
 65 70 75 80  
 Ala Leu Pro Val Thr Trp Gly Thr Ser Ser Arg Asp Glu Asp Leu Glu  
 85 90 95  
 Asn Cys Ser His His Leu  
 100

&lt;210&gt; 4889

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4889

Leu Ser Gln Ser Gln Leu Asn Arg His Leu Asn Cys Ile Cys Lys Ile  
 1 5 10 15  
 Leu Ser Leu Leu Pro Tyr Ser Leu Thr Lys Cys Asn Arg Arg Cys Pro  
 20 25 30  
 His Lys Gly Met Asp Ile Gly Leu Gly Lys Asp Phe Arg Asn His Leu  
 35 40 45  
 Arg Ile Leu Pro Thr Thr Asn Ser Ile Leu Gln Val Ser Ile Ser Ser  
 50 55 60  
 Ile Leu Val Ile His  
 65

&lt;210&gt; 4890

&lt;211&gt; 75

4439

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4890

Phe Val Ser Glu Gly Asp Phe Pro Ser Tyr Thr Leu Gly Leu Glu Asp  
 1 5 10 15

Phe Glu Tyr Leu Gly Pro Phe Ser Cys Glu His Gly Leu Phe Pro His  
 20 25 30

Ser Ser Tyr Leu Leu Thr Arg Gly Ile Leu Gly Arg Asp Leu Arg Ser  
 35 40 45

Ser Phe Ser Cys Phe Pro Glu Gln Ser Leu Lys Phe Thr Val Asn Lys  
 50 55 60

Leu Phe Asp His Glu Lys Lys Lys Lys Ser Thr  
 65 70 75

&lt;210&gt; 4891

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4891-

Gly Ala Ala Leu Leu Ile Trp Gly Val Ser Arg Leu Ser Ala Leu Thr  
 1 5 10 15

Leu Leu Xaa His Pro Xaa Thr Asp Lys Val Arg Leu Gln Arg Arg Val

4440

20                      25                      30  
 Thr Pro Met Cys Tyr Ser Phe Phe Xaa Thr Ser Phe Thr Gly Asp Asn  
                     35                      40                      45  
 Ala His Thr Val Gln Phe Thr His Leu Lys Cys Thr Ile Gln Trp Val  
                     50                      55                      60  
 Leu Val Tyr Ser Trp Gly Leu Cys Asn Pro Xaa Pro  
                     65                      70                      75

&lt;210&gt; 4892

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4892

Glu Glu Gly Leu Arg Asn Lys Lys Ala Lys Glu Pro Phe Glu Glu Ala  
   1                      5                      10                      15  
 Ser Cys Leu Leu Gly Ala Gly Val Cys Ala Gly Val Val Leu Arg Gly  
                     20                      25                      30  
 Arg Lys Glu Pro Xaa Ser Pro Glu Asp Pro Pro Gly Gly Ala Gly Leu  
                     35                      40                      45  
 Lys Phe Arg Trp Val Pro Gly Gly Ser Ala Leu Arg Ser Thr Asp Gly  
                     50                      55                      60  
 Leu Arg Ser Gln Cys Ala Ala Arg Thr Ser Arg Ser Gly Gly Arg Val  
   65                      70                      75                      80  
 Leu Pro Thr Pro Ala Leu Gly Ser Glu Lys Ala Ala Leu Val Leu Phe  
                     85                      90                      95  
 Leu Gly Met Ser Ala Glu Gly Ala Pro Gly  
                     100                      105

&lt;210&gt; 4893

&lt;211&gt; 190

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



## 4441

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4893

Arg	His	Arg	Gln	Gln	Gln	Lys	Ala	His	Cys	Pro	His	Pro	Leu	Thr	Leu
1				5					10					15	

Asn	Phe	Leu	Ser	Leu	Phe	Lys	Ile	Leu	Ala	Ser	Asp	Cys	Ser	Ala	Ala
		20					25						30		

Xaa	Asn	Phe	Leu	Val	Pro	Ser	Trp	Gly	Xaa	Trp	Gly	Gly	Val	Tyr	Arg
	35						40					45			

Leu	Phe	Ser	Ala	Ser	Ala	Leu	Leu	Ser	Gln	Gly	Phe	Glu	Pro	Leu	Arg
	50					55					60				

Phe	Ser	Gly	Gln	Thr	Arg	Lys	Asn	Glu	Asn	Thr	Ala	Trp	Gly	Ala	Pro
65					70					75					80

Thr	Ser	Arg	Arg	Leu	Cys	Gln	Leu	Thr	Ser	Gly	His	Gly	Ala	Ala	Ala
			85						90					95	

Gly	Ala	His	Gly	Gly	Gln	Gly	Gln	Leu	His	Ile	Leu	Pro	Ser	Pro	Ser
		100						105					110		

His	Phe	Thr	Val	Ala	Pro	Asn	Pro	Ala	Arg	Arg	Glu	Arg	Val	Ser	Ala
		115					120					125			

Pro	Gln	Thr	Thr	Gly	Ser	Leu	Leu	Thr	Lys	Asn	Gly	Glu	Thr	Arg	Phe
	130					135					140				

His	Leu	Ser	Ala	Glu	Glu	Pro	Gln	Ala	Gly	Leu	Ser	Glu	Arg	Asp	Gly
145					150					155					160

Ala	Gly	Gly	Arg	Leu	Trp	Ile	Ala	Ser	Gln	Ile	Lys	Leu	Cys	Ser	Leu
				165					170					175	

Asn	Val	Ala	Ser	Arg	Gln	Glu	Lys	Ala	Trp	Gly	Leu	Asn	Ser		
			180					185				190			

&lt;210&gt; 4894

4442

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4894

Gly Asp Lys Asn Val Leu Lys Phe Ile Val Met Met Leu Ala Ile Ser  
 1 5 10 15

Ile Ser Arg Leu Asn Ala Val Met Val Ala Asn Ser Ile Asn Ile Phe  
 20 25 30

Asn Val Val Met Val Ala Asn Ser Met Lys Asn Pro Asn Cys Thr Ile  
 35 40 45

Ser Met Ser Glu Ser Met Leu Cys Glu Cys Leu His Lys Gly Phe Ile  
 50 55 60

&lt;210&gt; 4895

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4895

Thr Val Pro Arg Pro Arg Pro Asp Phe Ser His Ala Pro Pro Ser Thr  
 1 5 10 15

Ser Ala Leu Gly Cys Leu Gly Arg Glu Arg Arg Arg Gly Ala Trp Arg  
 20 25 30

Gly Thr Pro Gly Gln Asn Asp Ser Gly Met Ser Arg Glu Arg Lys Glu  
 35 40 45

Ala Pro Trp Asp Ala Gly Gly Arg Val Leu Gly Pro Gly Leu Gln Pro  
 50 55 60

Arg Thr Gly Ala Thr Ala Gly Pro Ser Pro Asp Arg Pro Arg Ala Gly  
 65 70 75 80

Gly Gln Ala Arg Val Arg Cys Ala Ala Arg Pro Arg Ser Leu Thr Thr  
 85 90 95

Val Pro Thr His Arg Gly Gly Pro  
 100

4443

&lt;210&gt; 4896

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4896

Leu Leu Ile Pro Met Pro Leu Cys Asp Pro Ile Leu Asn Thr Ala Arg  
 1 5 10 15

Ala Val Phe Gln Gln His Ser Ser Asn Leu Val Ser Ser Pro Leu Leu  
 20 25 30

His Ala Ser Val Ala Phe Pro Val Thr Trp His Gly Thr Arg Pro Gln  
 35 40 45

Leu Pro Tyr Ile Pro Ala Asn Ser Tyr Pro Thr Phe Leu Cys Ser His  
 50 55 60

Ser Phe Leu Phe Leu Pro His  
 65 70

&lt;210&gt; 4897

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4897

Gly Cys Gly Gly Phe Gln Cys Val Glu Trp Lys Gly Asn Cys Arg Ile  
 1 5 10 15

Val Ser Ala Pro His Ser Glu Gly Leu Leu Pro Val Pro Pro Arg Pro  
 20 25 30

Gly Ala Ser Thr Ala Ser Pro His Ser Thr Gln Met Pro Arg Ser Ser  
 35 40 45

Glu Leu Val Tyr Glu Lys Ser Pro Thr Phe Ser Pro Lys Thr Ser Leu  
 50 55 60

Leu Ser Leu His Lys Lys Lys Arg Lys Gly Thr Lys Glu Lys His Ser  
 65 70 75 80

Val Phe Leu Phe Leu Lys Lys Val Ser Pro Phe Leu Lys Ser Ser Asn  
 85 90 95

Glu Thr Leu Ser Gly Asn  
 100

4444

&lt;210&gt; 4898

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4898

Pro Gln Gln Xaa Thr Ser Gln Glu Val Glu Asn Ser Lys Gln Glu Lys  
1 5 10 15

Tyr Gln Asn Asn Tyr Thr Gln Thr Ser Glu Asn Gln Arg Gln Lys Glu  
20 25 30

Asn Leu Gln Arg Ser Gln Arg Lys Ser Asn Leu Thr Tyr Ser Lys Thr  
35 40 45

Gly Gln Glu Leu Asn  
50

&lt;210&gt; 4899

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4899

Gly Asn Asn Cys Arg Ser Ile Glu Val Thr Ala Lys Ile Phe Tyr Ser  
1 5 10 15

Asn Trp Val Asn Pro Val Asn His Val Arg Asn Ser Ser Pro Arg Val  
20 25 30

Ser Met Leu Leu Leu Tyr Phe Cys Lys His Asn Pro Leu Thr  
35 40 45

&lt;210&gt; 4900

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

## 4445

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4900

Leu Leu Phe Asn Leu Pro Ile Glu Leu Leu Gly Phe Lys Lys Tyr Phe  
1 5 10 15

Xaa Asn Asp Phe Leu Gly Leu Glu Ser Thr Phe Asn Thr Phe Lys Leu  
20 25 30

Val Phe Leu Leu Glu Ile Phe Arg Ile Ser Ser Leu Ile Gly Asn Leu  
35 40 45

Tyr Arg Ser Leu Val Arg Phe Val Ala Lys Met Cys His Arg Trp Thr  
50 55 60

Gln Ile Ser His Ser Gly Ala Ile Ser Tyr His Ser Gly Gly  
65 70 75

<210> 4901

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4901

Cys Leu Xaa Tyr Phe Xaa Met Asp Ile Glu Val Lys Met Ser Phe Ile  
1 5 10 15

Cys Ile Tyr Leu Gly Lys Glu Asp Met Leu Leu Lys Gln Gly Gln Met  
20 25 30

Tyr Met Ala Asp Ser Gln Cys Thr Ser Pro Gly Tyr Pro Gly Pro Met  
35 40 45

<210> 4902

4446

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4902

Arg	Lys	His	Lys	Ala	Ile	Arg	Leu	Ile	Ser	Gly	Glu	Leu	His	Thr	Glu
1				5					10					15	

Gly	Glu	Xaa	Lys	Phe	Leu	Ser	Pro	Trp	Ser	Thr	Pro	Ser	Xaa	Xaa	Ser
			20					25					30		

Glu	Arg	Val	Pro	Phe	Met	Ser	Asn	Thr	Ala	Ser	His
		35					40				

&lt;210&gt; 4903

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

Ser	Tyr	His	Ser	Val	Ser	Gly	Phe	Leu	Val	Val	Tyr	Thr	Phe	Thr	Ile
1				5				10					15		

Met	Ala	Lys	Cys	Phe	Lys	Ile	Ile	Gln	Leu	Phe	Lys	Glu	Thr	Tyr	Tyr
			20					25					30		

Ala	Lys	Asp	Thr	Leu	Glu	Met	Leu	Cys	Ile
		35					40		

&lt;210&gt; 4904

&lt;211&gt; 103

&lt;212&gt; PRT

4447

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

```

Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg
 1              5              10              15

Val Arg Ser Val Pro Leu Trp Leu Leu Ser His Leu Lys Asn Asp Pro
          20              25              30

Ser Gly Pro Phe Pro Pro Pro Cys Pro Leu Pro His Thr Ser Arg Phe
          35              40              45

Pro Val Arg Gln Gln Val Gln Arg Leu Gln Asp Leu Ala Leu Leu Ser
          50              55              60

Leu Leu Glu Pro Leu Lys Glu Lys Ala Gly Phe Glu Leu Phe Ala Phe
 65              70              75              80

Glu Ser Trp Arg His Lys Arg Tyr Leu Gly Tyr Arg Ser Arg Arg Arg
          85              90              95

Glu Arg Thr Pro Arg Ser Asn
          100

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&lt;210&gt; 4905

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4905

```

Phe Tyr Phe Ser Ser Lys Ser Leu Phe His Thr Cys Lys Ile Leu Gly
 1              5              10              15

Arg Arg Phe Leu Lys Leu Cys Gln Glu Leu Leu Pro Ile Ser Lys Asn
          20              25              30

Ser Leu Leu Cys Ser Lys Thr Thr Ile Ser Leu Arg Asp Cys Leu Lys
          35              40              45

Gly Glu Arg Ala Thr Arg Glu Ile Ile His Ser Ala His Arg Asn Tyr
          50              55              60

Cys Ser Ser Gly Leu Pro Ala Thr Val Phe Arg Cys Trp Val
          65              70              75

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&lt;210&gt; 4906

&lt;211&gt; 219

4448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4906

Lys Val Asp Lys Gln Leu Phe Pro Pro Ser Tyr Gln Glu Lys Cys Ser  
 1 5 10 15

Gly Ser Tyr Ala Thr Pro Ser Ser Glu Asn Val Gln Leu Arg Gln Asn  
 20 25 30

Leu Gly Thr Lys Lys Asn Leu Xaa His Val Asn Lys Ile Leu Lys Ala  
 35 40 45

Lys Lys Leu Gln Arg Gln Ala Arg Thr Gly Asn Asn Phe Val Lys Arg  
 50 55 60

Arg Pro Gly Arg Pro Arg Lys Cys Pro Leu Gln Ala Val Val Ser Met  
 65 70 75 80

Gln Ala Phe Gln Ala Ala Gln Phe Val Asn Pro Glu Leu Asn Arg Asp  
 85 90 95

Glu Glu Gly Ala Ala Leu His Leu Ser Pro Asp Thr Val Thr Asp Val  
 100 105 110

Ile Glu Ala Val Val Gln Ser Val Asn Leu Asn Pro Glu His Lys Lys  
 115 120 125

Gly Leu Lys Arg Lys Gly Trp Leu Leu Glu Glu Gln Thr Arg Lys Lys  
 130 135 140

Gln Lys Pro Leu Pro Glu Glu Glu Glu Gln Glu Asn Asn Lys Ser Phe  
 145 150 155 160

Asn Glu Ala Pro Val Glu Ile Pro Ser Pro Ser Glu Thr Pro Ala Lys  
 165 170 175

Pro Ser Glu Pro Glu Ser Thr Leu Gln Pro Val Leu Ser Leu Ile Pro  
 180 185 190

Arg Glu Lys Lys Pro Pro Arg Pro Pro Lys Lys Lys Tyr Gln Lys Ala  
 195 200 205

Gly Leu Tyr Ser Asp Val Tyr Lys Thr Thr Glu  
 210 215



4449

&lt;210&gt; 4907

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4907

Ser His Cys Thr Val Asn Ser Lys Lys Ile Glu Glu Leu Phe Trp His  
 1 5 10 15

Leu Lys Thr Ile Thr Gln Phe Ser Arg Glu Val Thr Asp Lys Arg Asp  
 20 25 30

His Thr Asp Cys Phe Val Val Leu Val Leu Ser Tyr Ser Leu Met Gln  
 35 40 45

Ile Arg Thr Phe Thr Ser Ile Cys Val Gly Pro Thr Leu Pro Gly Gln  
 50 55 60

Ile Gln Leu Gln Ser Pro Cys Arg Tyr Glu Phe Ser Arg Asn Glu Pro  
 65 70 75 80

Met Phe Ser Ala Arg Ile Asn Trp Ser Tyr Thr Ile Tyr Lys Asn Glu  
 85 90 95

Tyr Cys Ile Leu Tyr Leu  
 100

&lt;210&gt; 4908

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4908

Gly Xaa Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp  
 1 5 10 15

Pro Arg Val Arg Gly Ser Pro Leu Leu Cys Ala Leu Ser Ser Val Met  
 20 25 30

Arg Arg Glu Pro Phe Ala Val Cys Ser Val Gln Cys His Glu Thr Gly  
 35 40 45

4450

Ala Leu Cys Cys Val Leu Cys Pro Val Ser  
50 55

&lt;210&gt; 4909

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (148)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (177)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (183)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (195)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4909

Ala Arg Pro Ser Leu Arg Thr Cys Tyr Pro Arg Gly Asn Ile Thr Met  
1 5 10 15

Ser Glu Ala Pro Arg Ala Glu Thr Phe Val Phe Leu Asp Leu Glu Ala  
20 25 30

Thr Gly Leu Pro Ser Val Glu Pro Glu Ile Ala Glu Leu Ser Leu Phe  
35 40 45

Ala Val His Arg Ser Ser Leu Glu Asn Pro Glu His Asp Glu Ser Gly

## 4451

50                                      55                                      60  
 Ala Leu Xaa Leu Pro Arg Val Leu Asp Lys Leu Thr Leu Cys Met Cys  
 65                                      70                                      75                                      80  
 Pro Glu Arg Pro Phe Thr Ala Lys Ala Ser Glu Ile Thr Gly Leu Ser  
                                     85                                      90                                      95  
 Ser Glu Gly Leu Ala Arg Cys Arg Lys Ala Gly Phe Asp Gly Ala Xaa  
                                     100                                      105                                      110  
 Val Arg Thr Leu Gln Ala Phe Leu Ser Arg Gln Ala Gly Pro Ile Cys  
                                     115                                      120                                      125  
 Leu Val Ala His Asn Gly Phe Asp Tyr Asp Phe Pro Leu Leu Cys Ala  
                                     130                                      135                                      140  
 Glu Leu Arg Xaa Leu Gly Ala Arg Leu Pro Arg Asp Thr Val Cys Leu  
 145                                      150                                      155                                      160  
 Asp Thr Leu Pro Ala Leu Arg Gly Leu Asp Arg Ala His Lys Pro Arg  
                                     165                                      170                                      175  
 Xaa Pro Gly Pro Gly Pro Xaa Arg Val Thr Ser Leu Gly Lys Leu Phe  
                                     180                                      185                                      190  
 Pro Pro Xaa Leu Ser Gly Lys Thr  
                                     195                                      200

&lt;210&gt; 4910

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4910

Pro Arg Val Ser Leu Pro Phe Arg Glu Arg Ala Glu Val Leu Thr Leu  
 1                                      5                                      10                                      15  
 Val Ala Cys Cys His Leu Ser Leu Ala Ser Ala Leu Val His Pro His  
                                     20                                      25                                      30  
 Ser Thr Leu Arg Ser His Ser His His Gln Arg Leu Asn Pro Lys Ala  
                                     35                                      40                                      45  
 -Leu Gln Asp Leu Lys Val Pro Ser Glu Ala Ser Glu Ile Lys Tyr Cys  
                                     50                                      55                                      60  
 Ser Asn  
 65

4452

<210> 4911  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (13)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (26)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4911  
 Lys Gln Lys His Ile Tyr Phe Lys Lys Tyr Thr Ser Xaa Tyr Glu Ile  
   1                  5                  10                  15  
 Phe Ser Phe Glu Cys Met Leu Lys Trp Xaa Xaa Ser Arg Ile Ser Tyr  
           20                  25                  30  
 Asn Thr Gly Tyr Leu Glu Thr Arg Tyr  
       35                  40

<210> 4912  
 <211> 255  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (65)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4912  
 Arg Glu Lys Ser Thr Phe Glu Cys Ser Glu Cys Gly Lys Ala Phe Ser  
   1                  5                  10                  15  
 Tyr Leu Ser Asn Leu Asn Gln His Gln Lys Thr His Thr Gln Glu Lys  
       20                  25                  30

4453

Ala Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ile Arg Ser Ser Ser  
           35                          40                          45  
 Leu Ala Lys His Glu Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys  
           50                          55                          60  
 Xaa Glu Cys Gly Lys Thr Phe Ser Tyr Gly Ser Ser Leu Ile Gln His  
           65                          70                          75                          80  
 Arg Lys Ile His Thr Gly Glu Arg Pro Tyr Lys Cys Asn Glu Cys Gly  
                           85                          90                          95  
 Arg Ala Phe Asn Gln Asn Ile His Leu Thr Gln His Lys Arg Ile His  
                   100                          105                          110  
 Thr Gly Ala Lys Pro Tyr Glu Cys Ala Glu Cys Gly Lys Ala Phe Arg  
           115                          120                          125  
 His Cys Ser Ser Leu Ala Gln His Gln Lys Thr His Thr Glu Glu Lys  
           130                          135                          140  
 Pro Tyr Gln Cys Asn Lys Cys Glu Lys Thr Phe Ser Gln Ser Ser His  
           145                          150                          155                          160  
 Leu Thr Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys  
                   165                          170                          175  
 Asn Glu Cys Asp Lys Ala Phe Ser Arg Ser Thr His Leu Thr Glu His  
                   180                          185                          190  
 Gln Asn Thr His Thr Gly Glu Lys Pro Tyr Asn Cys Asn Glu Cys Arg  
           195                          200                          205  
 Lys Thr Phe Ser Gln Ser Thr Tyr Leu Ile Gln His Gln Arg Ile His  
           210                          215                          220  
 Ser Gly Glu Lys Pro Phe Gly Cys Asn Asp Cys Gly Lys Ser Phe Arg  
           225                          230                          235                          240  
 Tyr Arg Ser Ala Leu Asn Lys His Gln Arg Leu His Pro Gly Ile  
                   245                          250                          255

&lt;210&gt; 4913

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

4454

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4913

Leu Leu Glu Ala Gln Ala Gly Glu Gly Gly Arg Val Ser Arg Arg Ala  
 1 5 10 15

Pro Leu Ser Leu Thr Gln Arg Ser Cys Val Phe Leu Val Lys Pro Ser  
 20 25 30

His Ala Arg Gly Pro Ile Ala Ser Ser Pro Pro Ser Leu Pro Thr Asn  
 35 40 45

Ile Pro Ser Pro Asp Pro Asn Ser Pro Pro His Tyr Pro Ala Leu Asp  
 50 55 60

Leu Gly Asn Val Phe Leu Tyr Phe Asn Ile Ala Gln Gly Lys Asn Thr  
 65 70 75 80

Tyr Ile Leu Arg Asp Leu Gly Trp Gly Lys Gln Lys Pro Cys Gly Val  
 85 90 95

Xaa Lys Thr Lys Ala Tyr Phe Tyr Lys Cys Leu Met Phe Ser Pro Pro  
 100 105 110

Gly Cys Ser Glu Thr Pro  
 115

&lt;210&gt; 4914

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (151)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4455

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (177)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4914

Arg Ile Ser Gln Cys Leu Gly Arg Gly Glu Val Gln Glu Cys Val Leu  
 1 5 10 15

Arg Leu Asn His Ile Ile Leu Gln Arg Xaa Trp Ala Ala Arg His Ile  
 20 25 30

Val Asn Arg Ile Asn Ala Phe Lys Pro Thr Ala Asp Arg Pro Phe Val  
 35 40 45

Leu Gly Leu Pro Thr Gly Gly Thr Pro Met Thr Thr Tyr Lys Ala Leu  
 50 55 60

Val Glu Met His Lys Ala Gly Gln Val Ser Phe Lys His Val Val Thr  
 65 70 75 80

Phe Asn Met Asp Glu Tyr Val Gly Leu Pro Lys Glu His Pro Glu Ser  
 85 90 95

Tyr Tyr Ser Phe Met His Arg Asn Phe Phe Asp His Val Asp Ile Pro  
 100 105 110

Ala Glu Asn Ile Asn Leu Leu Asn Gly Asn Ala Pro Asp Ile Asp Ala  
 115 120 125

Glu Cys Arg Gln Tyr Glu Xaa Lys Ile Arg Ser Tyr Gly Lys Ile His  
 130 135 140

Leu Phe Met Gly Gly Val Xaa Asn Asp Gly His Ile Ala Phe Asn Glu  
 145 150 155 160

Pro Ala Ser Ser Leu Ala Ser Arg Thr Arg Ile Lys Thr Leu Thr His  
 165 170 175

Xaa His Ser Arg Arg Lys Leu Ser Phe Leu  
 180 185

&lt;210&gt; 4915

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4915

Gly Ile Leu Phe Ile Tyr Leu Asp Gly Ala Phe Asp Leu Cys Val Thr

## 4456

1	5	10	15
Ser Val Ser Lys Gly Gly Phe Glu Arg Glu Glu Thr Ala Thr Phe Ala	20	25	30
Leu Leu Tyr Arg Leu Arg Asn Ile Leu Phe Glu Arg Asn Arg Arg Val	35	40	45
Met Asp Val Ile Ser Arg Ser Gln Leu Tyr Leu Asp Asp Leu Phe Ser	50	55	60
Asp Tyr Tyr Asp Lys Pro Leu Ser Met Thr Asp Ile Ser Leu Lys Glu	65	70	75
Gly Thr His Ile Arg Val Asn Leu Leu Asn His Asn Ile Pro Lys Gly	85	90	95
Pro Cys Ile Leu Cys Gly Met Gly Asn Phe Lys Arg Glu Thr Val Tyr	100	105	110
Gly Cys Phe Gln Cys Ser Val Asp Gly Gln Lys Tyr Val Arg Leu His	115	120	125
Ala Val Pro Cys Phe Asp Ile Trp His Lys Arg Met Lys	130	135	140

&lt;210&gt; 4916

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4916

Asn Ser Ala Arg Val Cys Ile Leu Ser Arg Asp Arg Val Ser Pro Cys	1	5	10	15
Trp Leu Gly Trp Cys Leu Ser Leu Asp Leu Val Ile His Pro Pro Gln	20	25	30	
Pro Pro Arg Val Leu Gly Leu Gln Val Arg Ala Thr Ala Pro Gly Trp	35	40	45	
Phe Ser	50			

&lt;210&gt; 4917

&lt;211&gt; 212

&lt;212&gt; PRT



4457

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (165)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4917

Glu	Tyr	Cys	Asn	Thr	Val	Gln	Leu	Asp	Ser	Gly	Ile	Asp	Tyr	Arg	Lys
1				5				10					15		

Arg	Glu	Leu	Pro	Ala	Ala	Gly	Lys	Leu	Tyr	Tyr	Leu	Thr	Ser	Glu	Ala
			20					25					30		

Asp	Val	Glu	Ala	Val	Met	Asp	Lys	Leu	Phe	Asp	Glu	Leu	Ala	Gln	Lys
		35					40					45			

Gln	Asn	Asp	Leu	Thr	Arg	Pro	Arg	Ile	Leu	Lys	Val	Gln	Gly	Arg	Glu
	50					55					60				

Leu	Arg	Leu	Asn	Lys	Ala	Cys	Gly	Thr	Val	Ala	Asp	Cys	Thr	Phe	Glu
65					70					75					80

Glu	Leu	Cys	Glu	Arg	Pro	Leu	Gly	Ala	Ser	Asp	Tyr	Leu	Glu	Leu	Xaa
				85					90					95	

Lys	Asn	Phe	Asp	Thr	Ile	Phe	Leu	Arg	Xaa	Ile	Pro	Gln	Phe	Thr	Leu
			100					105					110		

Ala	Asn	Arg	Thr	Gln	Gly	Arg	Arg	Phe	Ile	Thr	Leu	Ile	Asp	Asn	Phe
		115					120					125			

Tyr	Asp	Leu	Lys	Val	Arg	Ile	Ile	Cys	Ser	Ala	Ser	Thr	Pro	Ile	Ser
	130					135					140				

Ser	Leu	Phe	Leu	His	Gln	His	His	Asp	Ser	Glu	Leu	Glu	Gln	Ser	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4458

145                      150                      155                      160  
 Ile Leu Met Asp Xaa Leu Gly Leu Xaa Gln Asp Ser Ala Glu Gly Leu  
                                  165                      170                      175  
 Ser Met Phe Thr Gly Glu Glu Glu Ile Phe Ala Phe Gln Arg Thr Ile  
                                  180                      185                      190  
 Ser Arg Leu Thr Glu Met Gln Thr Glu Gln Tyr Trp Asn Glu Gly Asp  
                                  195                      200                      205  
 Arg Thr Lys Lys  
                                  210

&lt;210&gt; 4918

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4918

Met Gln Asn Ile Glu Arg Ile Phe Met Ile Leu Pro Asn Cys Lys His  
   1                                  5                                  10                                  15  
 Ser Ser Gln Ser Leu Ile Ala Leu Glu Cys Phe Leu Asp Glu Gln Val  
                                   20                                  25                                  30  
 Thr Ser Cys Lys Pro Thr Ser Glu Val Arg Lys Met Phe Ser His Val  
                                   35                                  40                                  45  
 Ser Cys Ser Cys Gln Ile Phe Lys Asn Pro Pro Ser Phe Asn His Pro  
                                   50                                  55                                  60  
 Val Gly Lys Met Cys Tyr Lys Thr Leu Pro Pro Gly Val Phe Trp Glu  
   65                                  70                                  75                                  80  
 Glu Cys Leu Lys Lys Lys Lys Lys Thr Ala Xaa Arg Lys Tyr Phe Gln  
                                   85                                  90                                  95  
 Ile Leu Tyr

&lt;210&gt; 4919

## 4459

&lt;211&gt; 224

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (140)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (206)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (224)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4919

Tyr	Leu	Asp	Ala	Glu	Lys	Met	Gly	Gln	Lys	Ala	Ser	Gln	Gln	Leu	Ala
1				5					10					15	

Leu	Lys	Asp	Ser	Lys	Glu	Val	Pro	Val	Val	Cys	Glu	Val	Val	Ser	Glu
			20					25					30		

Ala	Ile	Val	His	Ala	Ala	Gln	Lys	Leu	Lys	Glu	Tyr	Leu	Gly	Phe	Glu
		35					40						45		

Tyr	Pro	Pro	Ser	Lys	Leu	Cys	Pro	Ala	Ala	Asn	Thr	Leu	Asn	Glu	Ile
	50					55					60				

Phe	Leu	Ile	His	Phe	Ile	Thr	Phe	Cys	Gln	Glu	Lys	Gly	Val	Asp	Glu
65					70					75					80

Trp	Leu	Thr	Thr	Thr	Lys	Met	Thr	Lys	His	Gln	Ala	Phe	Leu	Phe	Gly
				85					90					95	

Ala	Asp	Trp	Ile	Trp	Thr	Phe	Trp	Gly	Ser	Asp	Lys	Gln	Ile	Lys	Leu
		100						105					110		

Gln	Leu	Ala	Val	Gln	Thr	Leu	Gln	Met	Ser	Ser	Pro	Pro	Pro	Val	Glu
		115					120					125			

Ser	Lys	Pro	Cys	Asp	Leu	Ser	Asn	Pro	Glu	Ser	Xaa	Val	Xaa	Glu	Ser
						130		135			140				

4460

Ser Trp Lys Lys Ser Arg Phe Asp Lys Leu Glu Glu Phe Cys Asn Leu  
 145 150 155 160  
 Ile Gly Glu Asp Cys Leu Gly Leu Phe Ile Ile Phe Gly Met Pro Gly  
 165 170 175  
 Lys Pro Lys Asp Ile Arg Gly Val Val Leu Asp Ser Val Lys Ser Gln  
 180 185 190  
 Met Val Arg Ser His Leu Pro Gly Gly Lys Ala Val Ala Xaa Phe Val  
 195 200 205  
 Leu Glu Thr Glu Asp Cys Val Phe Ile Lys Glu Leu Leu Lys Ile Xaa  
 210 215 220

&lt;210&gt; 4920

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4920

Thr Trp Lys Leu Phe Tyr Gln Ile Thr Val Leu His His Pro Pro Val  
 1 5 10 15  
 Cys Leu Val Ser Leu Ile Asn Gly Arg Gly Ile Ser Lys Leu Ser Phe  
 20 25 30  
 Leu Thr Pro Phe Glu Tyr Ser Val Phe Ala Ile Ile Asp Val Ala Pro  
 35 40 45  
 His Asn Ser Pro Thr Phe Ile Leu Lys Asn Gln Asn Leu Lys Asn Cys  
 50 55 60  
 Ser Ser Cys Gln Ser Val Met Thr His Leu Arg Xaa Ile Leu Phe Leu  
 65 70 75 80  
 Asp Val

## 4461

&lt;210&gt; 4921

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4921

Lys Ser Ser Leu Cys Cys Ser His Phe Asn Ser Cys His Met Phe Cys  
1 5 10 15

Lys Gln Phe Phe Glu Phe Ile Ile Phe Gln Ser Cys Leu Tyr Tyr Ile  
20 25 30

Leu Pro His Lys Asn Phe Lys Phe Val  
35 40

&lt;210&gt; 4922

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4922

Glu Tyr Phe Gln Asn Pro Ser Leu Ser Lys Leu Phe Cys Gly Lys Ser  
1 5 10 15

Ser Ile Tyr Phe Ile Asn Val Met Cys Leu Ile Leu Asp Leu Phe Trp  
20 25 30

Glu Lys Leu Phe Lys Leu Gly Pro Phe Lys Leu Ile Leu Ser Ser Leu  
35 40 45

Glu Gly Arg Ser Tyr Leu Ala Asn Glu Ser  
50 55

&lt;210&gt; 4923

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4923

Phe Phe Glu Gln Ala Met Val Asp Ser Gly Ser Tyr Arg Asn Ser Ile  
1 5 10 15

Asp His Thr Val Val Leu Arg Glu Lys Leu Pro Ile Arg Ser Asn Ile  
20 25 30

Phe Pro Leu Met Leu Glu Thr Val Asp Gly His Pro Leu Ile Asn Gly

4462

35                      40                      45  
 Pro Ile Thr Lys Glu Thr Ser Pro Val Gln Val Gln Ile Gly Asn His  
     50                      55                      60  
 Val Glu Glu Leu Gln Phe Asp Ile Ile His Ala Pro Arg Tyr Pro Leu  
     65                      70                      75                      80  
 Ile Ile Gly Ile His Trp Leu Glu Thr His Asp Gln Thr  
                     85                      90

&lt;210&gt; 4924

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4924

Lys Ala Asp Thr Gly Ala Ile Lys Asn Pro Gly Asp Gly Gly Cys Ser  
     1                      5                      10                      15  
 Glu Leu Arg Ser Arg His Cys Pro Pro Ala Trp Ala Thr Arg Val Lys  
                     20                      25                      30  
 Leu Cys Leu Lys Lys Gln Thr Asn Lys Cys Ile  
     35                      40

&lt;210&gt; 4925

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4925

Trp His Pro Leu Ser Glu Ser Gln Ser Ser Leu Arg His Cys Tyr Lys  
     1                      5                      10                      15  
 Arg Thr Leu Arg Lys Ile Trp Pro Tyr Glu Pro Ser Gln Pro Gln Ala  
                     20                      25                      30  
 Lys Arg Met Thr Met Cys Val Ser Ala Ala His Gly Gln Phe Val Ser  
     35                      40                      45  
 His Cys Phe Gly Lys Pro Cys Val Pro Asn Gln Gly Arg Val Phe Gln  
     50                      55                      60  
 Gly Lys Val Asn Phe Pro Lys Phe Ile Lys Ile Glu Leu Gly Lys Pro  
     65                      70                      75                      80

4463

Ser Ile Leu Asn Leu Phe Gln Ser Ser Gly His His Ser Tyr Phe Phe  
                             85                            90                            95

Cys His Val Lys Glu Lys Phe Gln Ala Cys Ile Leu Ser Cys  
                             100                            105                            110

&lt;210&gt; 4926

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4926

Ser Pro Leu Arg Lys Ser Ser Gly Met Phe Ser Ile Ala Val Ser Phe  
   1                            5                            10                            15

Pro Pro Lys Ile Thr Trp Leu Gly Ser Tyr Trp Ser Ser Gly Asn Leu  
                             20                            25                            30

Ile Pro His Arg Asn Trp Arg Lys Gly Asn Ala Ser Arg Glu Glu Gln  
                             35                            40                            45

Leu Tyr Phe Cys Leu Ser Asn Lys Pro Thr Asn Arg Phe Trp Tyr Glu  
                             50                            55                            60

Leu Trp Arg His Lys Glu Asn Glu Cys Met Tyr Ser Lys Cys Thr Ser  
   65                            70                            75                            80

Phe Phe Thr Leu Ser Trp Gln Lys Met Gln His Phe  
                             85                            90

&lt;210&gt; 4927

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4927

Xaa Leu Glu His Ile Pro Asn Phe Ser Leu Asp Asp Met Val Lys Leu

4464

1	5	10	15
Val Glu Val Pro Asn Asp Gly Gly Pro Leu Gly Ile His Val Val Pro	20	25	30
Phe Ser Ala Arg Gly Gly Arg Thr Leu Gly Leu Leu Val Lys Arg Leu	35	40	45
Glu Lys Gly Gly Lys Ala Glu His Glu Asn Leu Phe Arg Glu Asn Xaa	50	55	60
Cys Ile Val Arg Ile Asn Asp Gly Asp Leu Arg Asn Arg Arg Phe Glu	65	70	75
Gln Ala Gln His Met Phe Arg Gln Ala Met Arg Thr Pro Ile Ile Trp	85	90	95
Phe His Val Val Pro Ala Ala Asn Lys Glu Gln Tyr Glu Gln Leu Ser	100	105	110
Gln Ser Glu Lys Asn Asn Tyr Tyr Ser Ser Arg Phe Ser Pro Asp Ser	115	120	125
Gln Tyr Ile Asp Asn Arg Ser Val Asn Ser Ala Gly Leu His Thr Val	130	135	140
Gln Arg Ala Pro Arg Leu Asn His Pro Pro Glu Gln Ile Asp Ser His	145	150	155
Ser Arg Leu Pro His Ser Ala His Pro Ser Gly Lys Pro Pro Ser Ala	165	170	175
Pro Ala Ser Ala Pro Gln Asn Val Phe Ser Thr Thr Val Ser Ser Gly	180	185	190
Tyr Asn Thr Lys Lys Ile Gly Lys Arg Leu Asn Ile Gln Leu Lys Lys	195	200	205
Gly Thr Glu Gly Leu Gly Phe Ser Ile Thr Ser Arg Asp Val Thr Ile	210	215	220
Gly Gly Ser Ala Pro Ile Tyr Val Lys Asn Ile Leu Pro Arg Gly Ala	225	230	235
Ala Ile Gln Asp Gly Arg Leu Lys Ala Gly Asp Arg Leu Ile Glu Val	245	250	255
Asn Gly Val Gly Leu Val Gly Lys Ser Gln Glu Glu Val Val Ser Leu	260	265	270
Leu			



4465

&lt;210&gt; 4928

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4928

Asp	Arg	Xaa	Met	Lys	Glu	Glu	Val	Lys	Gly	Ile	Pro	Val	Arg	Val	Ala
1				5					10					15	

Leu	Arg	Cys	Arg	Pro	Leu	Val	Pro	Lys	Glu	Ile	Ser	Glu	Gly	Cys	Gln
			20					25					30		

Met	Cys	Leu	Ser	Phe	Val	Pro	Gly	Glu	Pro	Gln	Val	Val	Val	Gly	Thr
		35					40					45			

Asp	Lys	Ser	Phe	Thr	Tyr	Asp	Phe	Val	Phe	Asp	Pro	Ser	Thr	Glu	Gln
	50					55					60				

Glu	Glu	Val	Phe	Asn	Thr	Ala	Val	Ala	Pro	Leu	Ile	Lys	Gly	Val	Phe
65					70					75					80

Lys	Gly	Tyr	Asn	Ala	Thr	Val	Leu	Ala	Tyr	Gly	Gln	Thr	Gly	Ser	Gly
				85					90					95	

Lys	Thr	Tyr	Ser	Met	Gly	Gly	Ala	Tyr	Thr	Ala	Glu	Gln	Glu	Asn	Glu
			100					105					110		

Pro	Thr	Val	Gly	Val	Ile	Pro	Arg	Val	Ile	Gln	Leu	Leu	Phe	Lys	Glu
		115					120					125			

Ile	Asp	Lys	Lys	Ser	Asp	Phe	Glu	Phe	Thr	Leu	Lys	Val	Ser	Tyr	Leu
	130					135					140				

Glu	Ile	Tyr	Asn	Glu	Glu	Ile	Leu	Asp	Leu	Leu	Cys	Pro	Ser	Arg	Glu
145					150					155					160

&lt;210&gt; 4929

4466

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (209)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (212)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4929

Pro	Arg	Leu	Leu	Arg	Leu	Pro	Arg	Ser	Val	Val	Val	Met	Asp	Ser	Pro
1				5					10					15	

Trp	Asp	Glu	Leu	Ala	Leu	Ala	Phe	Ser	Arg	Thr	Ser	Met	Phe	Pro	Phe
		20						25					30		

Phe	Asp	Ile	Ala	His	Tyr	Leu	Val	Ser	Val	Met	Ala	Val	Lys	Arg	Gln
	35						40					45			

Pro	Gly	Ala	Ala	Ala	Leu	Ala	Trp	Lys	Asn	Pro	Ile	Ser	Ser	Trp	Phe
	50					55					60				

Thr	Ala	Met	Leu	His	Cys	Phe	Gly	Gly	Gly	Ile	Leu	Ser	Cys	Leu	Leu
65					70					75					80

Leu	Ala	Glu	Pro	Pro	Leu	Lys	Phe	Leu	Ala	Asn	His	Thr	Asn	Ile	Leu
				85					90					95	

Leu	Ala	Ser	Ser	Ile	Trp	Tyr	Ile	Thr	Phe	Phe	Cys	Pro	His	Asp	Leu
		100						105					110		

Val	Ser	Gln	Gly	Tyr	Ser	Tyr	Leu	Pro	Val	Gln	Leu	Leu	Ala	Ser	Gly
		115					120					125			

Met	Lys	Glu	Val	Thr	Arg	Thr	Trp	Lys	Ile	Val	Gly	Gly	Val	Thr	His
	130					135					140				

Ala	Asn	Ser	Tyr	Tyr	Lys	Asn	Gly	Trp	Ile	Val	Met	Ile	Ala	Ile	Gly
145					150					155					160

Trp	Ala	Arg	Gly	Ala	Gly	Gly	Thr	Ile	Ile	Thr	Asn	Phe	Glu	Arg	Leu
			165					170						175	

Val	Lys	Gly	Asp	Trp	Lys	Pro	Glu	Gly	Asp	Glu	Trp	Leu	Lys	Met	Ser
			180					185					190		

## 4467

Tyr Pro Ala Lys Val Thr Leu Leu Gly Ser Val Ile Phe Thr Phe Gln  
 195 200 205  
 Xaa Thr Gln Xaa Leu Ala Ile Ser Lys His Asn Leu Met Phe Leu Tyr  
 210 215 220  
 Thr Ile Phe Ile Val Ala Thr Lys Ile Thr Met Met Thr Thr Gln Thr  
 225 230 235 240  
 Ser Thr Met Thr Phe Ala Pro Phe Glu Asp Thr Leu Ser Trp Met Leu  
 245 250 255  
 Phe Gly Trp Gln Gln Pro Phe Ser Ser Cys Glu Lys Lys Ser Glu Ala  
 260 265 270  
 Lys Ser Pro Ser Asn Gly Val Gly Ser Leu Ala Ser Lys Pro Val Asp  
 275 280 285  
 Val Ala Ser Asp Asn Val Lys Lys Lys His Thr Lys Lys Asn Glu  
 290 295 300

&lt;210&gt; 4930

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4930

Val Met Val Ala Glu Thr Ser Ser Leu Tyr Phe Gly Ala Lys Thr Lys  
 1 5 10 15  
 Arg Gln His Lys Arg Lys Ser Ile Leu Ile Glu Tyr Phe Val Glu Gln  
 20 25 30  
 Arg Arg Leu Asp Lys Asn Cys Lys Pro Thr Asp Ser Ala Asn Lys Glu  
 35 40 45  
 Arg Asn Val Leu Ala Ile Arg His Val Ser Ser Glu Ser Lys Ser Asn  
 50 55 60  
 Asn Cys Arg Leu Gln Lys Lys Lys Val Phe Lys Asn Phe Ile Lys Thr  
 65 70 75 80  
 Gly His

&lt;210&gt; 4931

&lt;211&gt; 121

4468

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4931

Glu Gly Leu Arg Asp Gly Arg Leu Ser Arg Ile Pro Phe Leu Ser Thr  
 1 5 10 15

Arg Ala Leu Leu Glu Pro Leu Ser Lys Gln Trp Gln Gly Thr Glu Arg  
 20 25 30

Ser Gln Gln Glu Ser Gly Arg Gly Leu Ile Ile Thr Lys Lys Thr His  
 35 40 45

Tyr Ala Arg Asn Arg Leu Cys Ala Pro Val Pro Asp Thr Trp Gln Lys  
 50 55 60

Cys Ser Ser Val Thr His Val Cys Glu Xaa Ile Ala Gly Ser Thr Pro  
 65 70 75 80

Ser Ala Trp Pro Ala Gly Ala Ser Ala Ala Asp Pro Met Leu Ser Gly  
 85 90 95

Gln Trp Gly Ala Ala Pro Gly Arg Leu Phe Trp Gly Arg Leu Ser Tyr  
 100 105 110

Pro Trp Ile Val Tyr Thr Leu Leu Cys  
 115 120

&lt;210&gt; 4932

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4932

Asp Lys Ser Glu Asn Val Lys Leu Ile Asn Pro Leu Leu Val Ser Lys  
 1 5 10 15

Gln Thr Thr Cys Leu Arg Lys Leu Leu Asn Phe His Val Leu Leu Pro  
 20 25 30

Asp Ser Ser Leu Ile Lys Arg Lys Lys Lys Asn Pro Ala Gln Ala Trp  
 35 40 45

Trp Leu Thr Pro Trp His Leu Glu Gly Pro Arg Trp Glu Pro

4469

50

55

60

&lt;210&gt; 4933

&lt;211&gt; 282

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4933

Asn Tyr Ser Leu Leu Arg Glu Arg Val Glu Met Val Gly Ile Leu Pro

1

5

10

15

Leu Cys Cys Ser Gly Cys Val Pro Ser Leu Cys Cys Ser Ser Tyr Val

20

25

30

Pro Ser Val Ala Pro Thr Ala Ala His Ser Val Arg Val Pro His Ser

35

40

45

Ala Gly His Cys Gly Gln Arg Val Leu Ala Cys Ser Leu Pro Gln Val

50

55

60

Phe Leu Lys Pro Trp Ile Phe Val Glu His Phe Ser Ser Trp Leu Ser

65

70

75

80

Leu Glu Leu Phe Ser Phe Leu Arg Tyr Leu Gly Thr Leu Leu Cys Ala

85

90

95

Cys Gly His Arg Leu Arg Glu Gly Leu Leu Leu Pro Cys Leu Leu Gly

100

105

110

Val Gly Ser Trp Leu Leu Phe Asn Asn Trp Thr Gly Gly Ser Trp Phe

115

120

125

Ser Leu His Leu Gln Gln Val Ser Leu Ser Gln Gly Ser His Val Ala

130

135

140

Ala Phe Leu Pro Glu Ala Ile Gly Pro Gly Val Pro Val Pro Val Ser

145

150

155

160

Gly Glu Ser Thr Ser Ala Gln Gln Ser His Ala Gly Trp Gln Leu Ser

165

170

175

Ala Glu Ala Asp Ala Cys Pro Ser Val Leu Tyr Ser Glu Val Leu Glu

180

185

190

Trp Asn Lys Asn Ile Asn Thr Tyr Thr Ser Phe His Asp Phe Cys Leu

195

200

205

Ile Leu Gly Ile Phe Leu Phe Cys Phe Val Leu Ala Val Ile Gly Leu

210

215

220

## 4470

Pro Tyr Ile Lys Pro Gly Leu Ser Leu Ser Val Ala Leu Leu Cys Lys  
 225 230 235 240

Ala Ser Tyr Tyr Ser Leu Val Trp Phe Ser Arg Thr Val Arg Ser Thr  
 245 250 255

Pro Gly Ala Val Cys Phe Leu Arg Leu Pro Gln His Lys Val Pro Tyr  
 260 265 270

His Cys Gln Pro Ser Ser Pro Asp Pro Lys  
 275 280

<210> 4934

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4934

Cys His Leu Asn Ser Ile His Trp Pro Ser Phe Tyr Asn Arg Arg Asp  
 1 5 10 15

Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro  
 20 25 30

Pro Phe Ala Ala Gly Val Ile Ala Xaa Lys Pro Ala Pro Ile Ala Leu  
 35 40 45

Xaa Asn Ser Cys Xaa Ala  
 50

<210> 4935

4471

&lt;211&gt; 292

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (201)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (242)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4935

Ile	Gln	Arg	Leu	Ser	Leu	Val	Arg	Ser	Leu	Cys	Glu	Ser	Glu	Gln	Gln
1				5					10					15	

Arg	Leu	Leu	Glu	Gln	Val	His	Gly	Xaa	Glu	Glu	Arg	Ala	His	Gln	Ser
			20					25					30		

Ile	Leu	Thr	Gln	Arg	Val	His	Trp	Ala	Glu	Ala	Leu	Gln	Lys	Leu	Asp
		35					40					45			

Thr	Ile	Arg	Thr	Gly	Leu	Val	Gly	Met	Leu	Thr	His	Leu	Asp	Asp	Leu
	50					55					60				

Gln	Leu	Ile	Gln	Lys	Glu	Gln	Glu	Ile	Phe	Glu	Arg	Thr	Glu	Glu	Ala
65						70				75					80

Glu	Gly	Ile	Leu	Asp	Pro	Gln	Glu	Ser	Glu	Met	Leu	Asn	Phe	Asn	Glu
				85					90					95	

Lys	Cys	Thr	Arg	Ser	Pro	Leu	Leu	Thr	Gln	Leu	Trp	Ala	Thr	Ala	Val
			100					105					110		

Leu	Gly	Ser	Leu	Ser	Gly	Thr	Glu	Asp	Ile	Arg	Ile	Asp	Glu	Arg	Thr
		115					120					125			

Val	Ser	Pro	Phe	Leu	Gln	Leu	Ser	Asp	Asp	Arg	Lys	Thr	Leu	Thr	Phe
		130					135				140				

Ser	Thr	Lys	Lys	Ser	Lys	Ala	Cys	Ala	Asp	Gly	Pro	Glu	Arg	Phe	Asp
145					150					155					160

His	Trp	Pro	Asn	Ala	Leu	Ala	Ala	Thr	Ser	Phe	Gln	Asn	Gly	Leu	His
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

175



4473

35

40

45

Gln Gln Pro Ser Arg

50

&lt;210&gt; 4937

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (234)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (235)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (245)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (248)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (261)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (263)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4937

His Val Arg Glu Thr His Val Ala Gly Glu Val Gly Glu Arg Lys Val

1

5

10

15

Gly Val Asn Thr Leu Trp Gly Ser Phe Glu Ile Ser Asn Val Arg Leu

20

25

30

Ala Arg Val Met Leu Thr Gln Phe Ala Glu Gly Arg Leu Glu Asp Gln

35

40

45

4474

Leu Asp Lys Tyr Asp His Trp Ala Asp Arg Phe Glu Asp Leu Pro Leu  
 50 55 60

Tyr Phe Met Thr Phe His Gly Gln Gln Ser Ile Arg Thr Val Ile Asp  
 65 70 75 80

Thr Met Gln His Ala Val Tyr Val Tyr Asp Ile Cys His Val Ile Ile  
 85 90 95

Asp Asn Leu Gln Phe Met Met Gly His Glu Gln Leu Ser Thr Asp Arg  
 100 105 110

Ile Ala Ala Gln Asp Tyr Ile Ile Gly Val Phe Arg Lys Phe Ala Thr  
 115 120 125

Asp Asn Asn Cys His Val Thr Leu Val Ile His Pro Arg Lys Glu Asp  
 130 135 140

Asp Asp Lys Glu Leu Gln Thr Ala Ser Ile Phe Gly Ser Ala Lys Ala  
 145 150 155 160

Ser Gln Glu Ala Asp Asn Val Leu Ile Leu Gln Asp Arg Lys Leu Val  
 165 170 175

Thr Gly Pro Gly Lys Arg Tyr Leu Gln Val Ser Lys Asn Arg Phe Asp  
 180 185 190

Gly Asp Val Gly Val Phe Pro Leu Glu Phe Asn Lys Asn Ser Leu Thr  
 195 200 205

Phe Ser Ile Pro Pro Lys Asn Lys Ala Arg Leu Lys Lys Ile Lys Asp  
 210 215 220

Asp Thr Gly Pro Val Ala Lys Lys Pro Xaa Xaa Gly Lys Lys Gly Ala  
 225 230 235 240

Thr Thr Gln Asn Xaa Glu Ile Xaa Ser Gly Gln Ala Pro Thr Pro Asp  
 245 250 255

Gln Gln Thr Pro Xaa Ser Xaa Gln Ser Glu Gly  
 260 265

&lt;210&gt; 4938

&lt;211&gt; 447

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

## 4475

&lt;221&gt; SITE

&lt;222&gt; (365)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4938

Gly Arg Ala Ser Gln Ala Pro Ser Ser Gly Leu Pro Ala Gly Gly Ala  
 1 5 10 15

Asn Gly Glu Ser Pro Gly Gly Gly Ala Pro Phe Pro Gly Ser Ser Gly  
 20 25 30

Ser Ser Ala Leu Leu Gln Ala Glu Val Leu Asp Leu Asp Glu Asp Glu  
 35 40 45

Asp Asp Leu Glu Val Phe Ser Lys Asp Ala Ser Leu Met Asp Met Asn  
 50 55 60

Ser Phe Ser Pro Met Met Pro Thr Ser Pro Leu Ser Met Ile Asn Gln  
 65 70 75 80

Ile Lys Phe Glu Asp Glu Pro Asp Leu Lys Asp Leu Phe Ile Thr Val  
 85 90 95

Asp Glu Pro Glu Ser His Val Thr Thr Ile Glu Thr Phe Ile Thr Tyr  
 100 105 110

Arg Ile Ile Thr Lys Thr Ser Arg Gly Glu Phe Asp Ser Ser Glu Phe  
 115 120 125

Glu Val Arg Arg Arg Tyr Gln Asp Phe Leu Trp Leu Lys Gly Lys Leu  
 130 135 140

Glu Glu Ala His Pro Thr Leu Ile Ile Pro Pro Leu Pro Glu Lys Phe  
 145 150 155 160

Ile Val Lys Gly Met Val Glu Arg Phe Asn Asp Asp Phe Ile Glu Thr  
 165 170 175

Arg Arg Lys Ala Leu His Lys Phe Leu Asn Arg Ile Ala Asp His Pro  
 180 185 190

Thr Leu Thr Phe Asn Glu Asp Phe Lys Ile Phe Leu Thr Ala Gln Ala  
 195 200 205

Trp Glu Leu Ser Ser His Lys Lys Gln Gly Pro Gly Leu Leu Ser Arg  
 210 215 220

Met Gly Gln Thr Val Arg Ala Val Ala Ser Ser Met Arg Gly Val Lys  
 225 230 235 240

Asn Arg Pro Glu Glu Phe Met Glu Met Asn Asn Phe Ile Glu Leu Phe

## 4476

	245		250		255
Ser Gln Lys Ile Asn Leu Ile Asp Lys Ile Ser Gln Arg Ile Tyr Lys	260	265	270		
Glu Glu Arg Glu Tyr Phe Asp Glu Met Lys Glu Tyr Gly Pro Ile His	275	280	285		
Ile Leu Trp Ser Ala Ser Glu Glu Asp Leu Val Asp Thr Leu Lys Asp	290	295	300		
Val Ala Ser Cys Ile Asp Arg Cys Cys Lys Ala Thr Glu Lys Arg Met	305	310	315	320	
Ser Gly Leu Ser Glu Ala Leu Leu Pro Val Val His Glu Tyr Val Leu	325	330	335		
Tyr Ser Glu Met Leu Met Gly Val Met Lys Arg Arg Asp Gln Ile Gln	340	345	350		
Ala Glu Leu Asp Ser Lys Val Glu Val Leu Thr Tyr Xaa Lys Ala Asp	355	360	365		
Thr Asp Leu Leu Pro Glu Glu Ile Gly Lys Leu Glu Asp Lys Val Glu	370	375	380		
Cys Ala Asn Asn Ala Leu Lys Ala Asp Trp Glu Arg Trp Lys Gln Asn	385	390	395	400	
Met Gln Asn Asp Ile Lys Leu Ala Phe Thr Asp Met Ala Glu Glu Asn	405	410	415		
Ile His Tyr Tyr Glu Gln Cys Leu Ala Thr Trp Glu Ser Phe Leu Thr	420	425	430		
Ser Gln Thr Asn Leu His Leu Glu Glu Ala Ser Glu Asp Lys Pro	435	440	445		

&lt;210&gt; 4939

&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

4477

&lt;221&gt; SITE

&lt;222&gt; (219)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (234)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4939

Ala Ala Ala Ala Gln Gly Leu Val Arg Ala Gly Arg Arg Glu Leu Met  
 1 5 10 15

Ala Glu Glu Glu Ser Asp Gln Glu Ala Glu Arg Leu Gly Glu Glu Leu  
 20 25 30

Val Ala Ile Val Glu Ser Pro Leu Gly Pro Val Gly Leu Arg Ala Ala  
 35 40 45

Gly Asp Gly Arg Gly Gly Ala Gly Ser Gly Asn Cys Gly Gly Gly Val  
 50 55 60

Gly Ile Ser Ser Arg Asp Tyr Cys Arg Arg Phe Cys Gln Val Val Glu  
 65 70 75 80

Asp Tyr Ala Gly Arg Trp Gln Val Pro Leu Pro Gln Leu Gln Val Leu  
 85 90 95

Gln Thr Ala Leu Cys Cys Phe Thr Thr Ala Ser Ala Ser Phe Pro Asp  
 100 105 110

Glu Cys Glu His Val Gln Tyr Val Leu Xaa Ser Leu Ala Val Ser Phe  
 115 120 125

Phe Glu Leu Leu Leu Phe Phe Gly Arg Asp Glu Phe Tyr Glu Glu Pro  
 130 135 140

Leu Lys Asp Ile Leu Gly Ser Phe Gln Glu Cys Gln Asn His Leu Arg  
 145 150 155 160

Arg Tyr Gly Asn Val Asn Leu Glu Leu Val Thr Arg Ile Ile Arg Asp  
 165 170 175

Gly Gly Pro Trp Glu Asp Pro Val Leu Gln Ala Val Leu Lys Ala Gln  
 180 185 190

Pro Ala Ser Gln Glu Ile Val Asn Lys Tyr Leu Ser Ser Glu Asn Pro  
 195 200 205

Leu Phe Phe Glu Leu Arg Ala Arg Tyr Leu Xaa Ala Cys Glu Arg Ile  
 210 215 220

4478

Pro Glu Ala Met Ala Leu Ile Lys Ser Xaa Ile Asn His Pro Glu Ile  
225 230 235 240

Ser Lys Asp Leu Tyr Phe His Gln Ala Leu Phe Thr Cys Leu Phe Met  
245 250 255

Ser Pro Val Glu Asp Gln Leu Phe Arg Glu Val Leu Phe Glu Thr Ile  
260 265 270

Phe Ala Tyr Tyr His Phe Asn Pro Thr Lys Lys Lys Pro Lys Lys Lys  
275 280 285

Ser Ser Pro Leu Leu Leu Leu Asn Ser Phe Tyr Ser Asn Ala Lys Asp  
290 295 300

Leu Arg Ile Thr Leu Ser Gly Cys Val Phe Phe Trp His His Asn Leu  
305 310 315 320

Arg Ser Cys

<210> 4940

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

## 4479

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4940

Xaa Asn Leu Leu Phe Val Gly Phe Xaa Lys Ser Phe Ala Cys Ile Xaa  
 1 5 10 15

Tyr Lys Thr Thr Thr Val Tyr Met Leu Leu Pro Leu Ala Asp Glu Leu  
 20 25 30

Xaa Xaa Lys  
 35

&lt;210&gt; 4941

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4941

Met Asn Gly Pro Val Leu Asp Pro Asp Lys Glu Glu Xaa Thr Met Glu  
 1 5 10 15

Ala Leu Gly Met Ile Glu Thr Arg Gly Leu Val Ala Leu Ile Glu Ala  
 20 25 30

Ser Asp Ala Met Val Lys Ala Ala Arg Val Lys Leu Val Gly Val Lys  
 35 40 45

Gln Ile Gly Gly Gly Leu Cys Thr Ala Met  
 50 55

&lt;210&gt; 4942

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4942

Pro Leu Lys Cys Phe Tyr Phe Gly Asn Phe Val Met Leu Ser Thr Phe  
 1 5 10 15

Val Ser Ala Gln Phe Ser Arg Leu Arg Ile Asn Leu Leu Phe Leu Asn  
 20 25 30

4480

Ser Thr Ala Asp Phe Ser Phe Lys Phe His Arg Leu Ser Thr Tyr Ile  
35 40 45

&lt;210&gt; 4943

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4943

Trp Gln Asn Gly Arg Leu Ile Phe Ser Ile Ile Ile Gly Glu His Ile  
1 5 10 15

Ile Phe Trp Asn His Ala Ile Leu His Thr Val Lys Pro Leu Ile Phe  
20 25 30

Gln Gly Asn Ser Phe Arg Ile Trp Tyr Trp His Ala Val Ser Tyr Leu  
35 40 45

Ser Arg Ile Phe Gly Leu Ser Glu Arg Tyr Gln Phe Lys Ile Ser Gly  
50 55 60

Ser Val Arg Ile Phe Asp Pro Ser Gln Cys Gln Tyr Leu Met Asn His  
65 70 75 80

&lt;210&gt; 4944

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4944

Lys Ser Ser Arg Lys Leu Leu Leu Lys Lys Thr Gly Tyr Leu Asn Ile  
1 5 10 15

Glu Ile Tyr Val Cys Cys Glu Phe Lys Glu Pro Val Ile Val Ser Phe  
20 25 30

Thr Lys Pro Ser Val Phe Asn Gly Cys Lys  
35 40



4481

&lt;210&gt; 4945

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4945

Arg Asn Val Asn Leu Cys Cys Phe Leu Cys Thr Ile Ala Ala Val Val  
 1 5 10 15

Ser Leu Leu Glu Ile Asn Ile Pro Tyr Tyr Asp Val Tyr Glu Tyr Arg  
 20 25 30

Phe Pro Phe Leu Pro Ser Leu Pro Pro Ser Pro Thr Phe Leu Phe Phe  
 35 40 45

Phe Ser Leu Ser Ala Ser Leu Phe Leu Leu Pro Ser Ser Leu Pro Leu  
 50 55 60

Ser Leu Leu Phe Leu Lys Ser Leu Ile Val Asn Lys Leu  
 65 70 75

&lt;210&gt; 4946

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4946

Asn Ser Phe Cys Tyr Phe His Ile Arg Val Gln Thr Tyr Lys Gly Ala  
 1 5 10 15

Cys Ser Leu Lys Val His Asn Tyr Ser Tyr Ser Val Cys Leu Tyr Cys  
 20 25 30

Tyr Arg Met Leu Cys Phe Gly Ala Leu Ser Ser Ala Asp Pro Arg Ser  
 35 40 45

Ser Val Glu Ile His Cys Leu Gly His Ser Leu Ile Arg Met Leu Ala  
 50 55 60

Gly Asp Phe Val Ser Asp Val Ala Ser Leu Phe Ser Val His Arg Leu  
 65 70 75 80

Arg Val Thr Thr Val Ala Cys Arg Val His Pro Val Gly Ala Ala Gln  
 85 90 95

Leu Ser Glu Ser Lys Asn Leu Pro Thr Tyr Ser Asn Val Phe Ala Leu  
 100 105 110

4482

&lt;210&gt; 4947

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4947

Leu Ala Ser Glu Ser Val Val Gln Leu Val Cys Thr Gly Leu Lys Ala  
 1 5 10 15

Gly Glu Trp Val Ile His His His Lys Gly Cys Pro Phe Phe Ala Val  
 20 25 30

Thr Ala Asp Ala Cys Gly Arg Arg Ala Gln Gly Ser His Tyr His Phe  
 35 40 45

Ser Leu Leu Thr Pro Arg Lys Leu Ser Thr Phe Leu Asp Thr Leu Phe  
 50 55 60

Lys Val Leu  
 65

&lt;210&gt; 4948

&lt;211&gt; 277

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4948

Val Ile Leu Asp Gly Leu Leu Thr Trp Gly Gln Phe Lys Gln His Tyr  
 1 5 10 15

Asn Arg His Phe Gly Phe Leu Gly Asp Phe Ile Gly Gln Val Gln Ser  
 20 25 30

Arg Lys Cys Ile Glu Asp Val Ile His Phe Ala Trp Glu Glu Lys Leu  
 35 40 45

Phe Leu Leu Ala Asp Glu Val Tyr Gln Asp Asn Val Tyr Ser Pro Asp  
 50 55 60

Cys Arg Phe His Ser Phe Lys Lys Val Leu Tyr Glu Met Gly Pro Glu  
 65 70 75 80

Tyr Ser Ser Asn Val Glu Leu Ala Ser Phe His Ser Thr Ser Lys Gly  
 85 90 95

4483

Tyr Met Gly Glu Cys Gly Tyr Arg Gly Gly Tyr Met Glu Val Ile Asn  
 100 105 110  
 Leu His Pro Glu Ile Lys Gly Gln Leu Val Lys Leu Leu Ser Val Arg  
 115 120 125  
 Leu Cys Pro Pro Val Ser Gly Gln Ala Ala Met Asp Ile Val Val Asn  
 130 135 140  
 Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys  
 145 150 155 160  
 Glu Ser Val Leu Gly Asn Leu Ala Lys Lys Ala Lys Leu Thr Glu Asp  
 165 170 175  
 Leu Phe Asn Gln Val Pro Gly Ile His Cys Asn Pro Leu Gln Gly Ala  
 180 185 190  
 Met Tyr Ala Phe Pro Arg Ile Phe Ile Pro Ala Lys Ala Val Glu Ala  
 195 200 205  
 Ala Gln Ala His Gln Met Ala Pro Asp Met Phe Tyr Cys Met Lys Leu  
 210 215 220  
 Leu Glu Glu Thr Gly Ile Cys Val Val Pro Gly Ser Gly Phe Gly Gln  
 225 230 235 240  
 Arg Glu Gly Thr Tyr His Phe Arg Met Thr Ile Leu Pro Pro Val Glu  
 245 250 255  
 Lys Leu Lys Thr Val Leu Gln Lys Val Lys Asp Phe His Ile Asn Phe  
 260 265 270  
 Leu Glu Lys Tyr Ala  
 275

&lt;210&gt; 4949

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4949

Glu Asn Pro Ser Phe Thr Arg Arg Pro Asp Ser Phe Tyr Thr Ser Phe  
 1 5 10 15  
 Ile Met Leu Asp Cys Asn Lys Phe Gln Ile Leu Glu Trp Ala Tyr Leu  
 20 25 30

4484

Thr Asp Leu Thr Ile Leu Met Ile Ser Ile Arg Ile Thr Tyr Ser Lys  
           35                          40                          45

Val Lys Ser Gly Lys Thr Leu Leu Val Phe Ile Leu Ile Ser Leu Tyr  
           50                          55                          60

Ser Phe Leu Asn Met Glu Ile Gln Trp  
       65                          70

&lt;210&gt; 4950

&lt;211&gt; 33

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4950

Ser Pro Ala Lys Trp Leu Met Pro Glu Ile Pro Ala Leu Cys Glu Ala  
       1                          5                          10                          15

Lys Ala Gly Gly Ser Pro Glu Ala Arg Ser Ser Arg Val Ala Trp Ala  
                           20                          25                          30

Ala

&lt;210&gt; 4951

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4951

Gly Arg Ala Val Leu Glu Ile Asp Trp Val Gly Leu Glu Pro Glu Phe  
       1                          5                          10                          15

Ile Phe Leu Ile Cys Ile Pro Gly Asp Ser Cys Glu Ser Asp Ala Phe  
                           20                          25                          30

Gly Asn His Cys Thr Lys Ser Tyr Leu Trp Val Leu Gln Thr Ala Ser  
           35                          40                          45

Pro Glu Ala Ser Leu Gly Leu Arg Ile Phe Ser Ser Asn Val Leu Val  
       50                          55                          60

Arg Ser Leu Ser Ile Leu Trp Gly Trp Leu Trp  
       65                          70                          75

4485

&lt;210&gt; 4952

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4952

Ile Phe Ser Ile Phe Thr Val Leu Val Tyr Phe Phe Pro Val Thr Val  
 1 5 10 15

Cys Met Asn Thr Asn Val Val Phe Asn Pro Pro Phe Gln Phe  
 20 25 30

&lt;210&gt; 4953

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (57)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4953

Gly Ala Leu Asp Cys Gly Ser Pro Ala Ser Ser Thr Pro Tyr Phe Thr  
 1 5 10 15

Gly Leu Glu Leu Pro Gly Asp Xaa Lys Leu Asp Ala Pro Tyr Asn Phe  
 20 25 30

Asn His Pro Phe Ser Ile Asn Asn Leu Met Xaa Glu Gln Thr Pro Ala  
 35 40 45

Pro Pro Lys Leu Asp Val Gly Phe Xaa Gly Tyr Gly Ala Glu Gly Gly  
 50 55 60

Glu Pro Gly Val Tyr Tyr Gln Gly Leu Tyr Ser Arg Ser Leu Leu Asn  
 65 70 75 80

Ala Ser

4486

&lt;210&gt; 4954

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4954

Asp	Thr	Thr	His	Tyr	Arg	Glu	Ser	Trp	Tyr	Ala	Cys	Arg	Tyr	Arg	Ser
1					5				10					15	

Gly	Ile	Pro	Gly	Ser	Thr	His	Ala	Ser	Asp	Cys	Phe	Val	Phe	Ser	Arg
			20					25					30		

Val	Leu	Tyr	Lys	Trp	Asn	Tyr	Ile	Val	Cys	Thr	Phe	Leu	Tyr	Ser	Leu
		35				40						45			

Ala	Ser	Phe	Thr	Gln	Ile	Ile	Ile	Leu	Arg	Phe	Phe	Ser	Val	Val	Ala
	50					55					60				

Cys	Ile	Asn	Asn	Ser	Phe	Ile	Phe	Cys	Ser	Asn	Ile	Pro	Leu	Tyr	Gly
65				70					75						80

Tyr	Thr	Lys	Ile	Tyr	His	Ser	Phe	Ala	Asp	Glu	His	Leu	Gly	Tyr	Leu
			85						90					95	

Gln	Phe	Tyr	Leu	Gln	Xaa	Lys	Leu	Leu	Arg	Ile	Leu	Val	Tyr	Glu	Ser
			100					105					110		

Leu	Tyr	Gly	His	Ile	Xaa	Ser	Phe
	115					120	

&lt;210&gt; 4955

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4487

<220>  
 <221> SITE  
 <222> (32)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (36)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (39)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (42)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4955  
 Phe Ile Asn Gly Lys Pro Glu Val Lys Lys Asp Leu Leu Glu Ala Gln  
 1 5 10 15  
 Thr Asn Ile Ala Phe Leu Gln Ser Glu Leu Asp Ala Leu Lys Ser Xaa  
 20 25 30  
 Tyr Ala Asp Xaa Ser Leu Xaa Thr Glu Xaa Asp Leu  
 35 40

<210> 4956  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<400> 4956  
 Asp Ser Gly Ala Ala Phe Ser Phe Gly Gly Leu Ala Phe Ile Val Glu  
 1 5 10 15  
 Asn Ala Met Gly Ser Phe Gln Asn Gly Tyr Leu Ser Asn Leu Ser Ile  
 20 25 30  
 Phe Gln Asn Ser Tyr Phe Phe Pro Ala His Gly Gln Thr Arg Glu Phe  
 35 40 45  
 Ser Ser Val Leu Arg His Glu Asn Leu Val Gly His Leu Lys Val Lys  
 50 55 60  
 Ser Val Asn Val

4488

65

&lt;210&gt; 4957

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4957

Pro	Pro	Ala	Ala	Ala	Ser	His	Leu	Gly	Asn	Ile	Glu	Asn	Gln	Gly	Asn
1					5				10					15	

Gly	Leu	Lys	Ala	Gly	Arg	Ser	Val	Cys	Gln	Gln	Gly	Pro	Asn	Tyr	Val
			20					25					30		

Arg	Trp	Thr	Arg	Gly	Thr	His	Leu	Gln	Gly	Gly	Lys	Ser	Arg	Gly	Arg
		35					40					45			

Thr	Ser	Gly	Asp	Trp	Pro	Lys	Val	Leu	Pro	Cys	Leu	Gln	Asp	Glu	Thr
	50					55					60				

Arg	Leu	Leu	Ser	Pro	Ala	Phe	Xaa	Ala	Pro	Ala	Thr	Arg	Leu	Leu	Leu
65					70					75					80

Thr	Asp	Pro	Ser	Leu	Pro	Leu	Ser	Ala	Ser	Ile	Gln	Val	Ala	Val	Pro
				85					90					95	

Ala	Leu	Cys	Xaa	Ala	Leu	Ser	Cys	Leu	Cys	Ile	Leu	His	Lys	Leu	
			100					105					110		

&lt;210&gt; 4958

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)



## 4489

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4958

Pro Gln Arg Xaa Val Lys Ser Phe Cys His Tyr Leu His Lys Cys Val  
1 5 10 15

Lys His Arg Phe Gln Gln Ser Ala Trp His Ile Xaa Gly Cys Ser Met  
20 25 30

Val Xaa Phe Ile Ile Ile Thr Gln Ile Pro Gln Trp Gln Glu Thr Ser  
35 40 45

Phe Tyr Ile Met Glu Asn Ile Tyr Ile Lys Ser His Leu Leu  
50 55 60

<210> 4959

<211> 44

<212> PRT

<213> Homo sapiens

<400> 4959

Ala Ile His Ser Leu Gln Gln Phe Asp Lys Ile Tyr Phe Cys Glu Gln  
1 5 10 15

Lys Leu Arg His Leu His Phe Leu Pro Met Trp Ser Leu Gln Thr Trp  
20 25 30

Glu Thr Ile His Glu Tyr Leu Tyr Cys Met Val Ile  
35 40

<210> 4960

<211> 55

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

## 4490

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4960

His	Ile	Phe	Xaa	Phe	Phe	Phe	Phe	Cys	Tyr	Thr	Lys	Ser	Arg	Phe	Leu
1				5					10					15	

Leu	Asn	Leu	Cys	Asn	Asn	Tyr	Ile	Thr	Ile	Gln	Tyr	Lys	Tyr	Cys	Thr
			20					25					30		

Ser	Ser	Ile	Lys	Ile	Cys	Ser	Leu	Tyr	Asp	Arg	Ile	His	Leu	Lys	Thr
		35					40					45			

Leu	Val	Ile	Leu	Pro	Arg	Leu
	50					55

&lt;210&gt; 4961

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4961

Ser	Asn	Gln	Gly	Asp	His	Gln	Val	Lys	Leu	Lys	His	Lys	Ile	Ile	Val
1				5					10					15	

Gly	Gly	Phe	Leu	Val	Lys	Asp	Val	Asn	Val	Gly	Phe	Pro	Thr	His	His
			20					25					30		

Gly	Val	Ser	Thr	His	His	Cys	Met	Leu	Gly	Thr	Ala	Val	Ser	Leu	Gly
		35					40					45			

His	Glu	Leu	Lys	Glu	His	Thr	Asn	Phe	Trp	Ser	Val	Pro	Ala	Ala	Ser
	50					55					60				

Arg	Pro	Ser	Phe	Cys	Tyr
65					70

&lt;210&gt; 4962

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4491

&lt;400&gt; 4962

Val Gln Pro Gln His Ala Cys Thr Gln Ala Leu Ile Lys Thr Ala Cys  
 1 5 10 15

Cys Ser Pro Leu Pro Arg Val Val Cys Trp Arg Ala Val Gly Val Arg  
 20 25 30

Thr Asp Thr Arg Thr Phe His Leu Pro Gly Ala Leu Ala Ser Ser Ile  
 35 40 45

Ser Phe Ser Thr Val Leu Lys Gln Asp Arg Xaa Ser Glu Arg Pro Val  
 50 55 60

Ile Cys Pro Lys Cys Cys Arg Arg Arg Leu Asn Val Leu Glu Ser Leu  
 65 70 75 80

Leu Ser His Leu His Tyr Asp Lys Ser Ile Val Pro Asn Arg  
 85 90

&lt;210&gt; 4963

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4963

Leu Ala His Ile Lys Ile Val Glu Pro His Thr Leu Asn Leu Ala Asn  
 1 5 10 15

Leu Val Thr Ala Gly Leu His Tyr Pro Val Leu Phe Phe Thr Arg Leu  
 20 25 30

Thr Leu Pro Cys Ser Trp Cys Cys Val Asp Leu Cys Xaa Lys His Asn  
 35 40 45

Arg Asn Ile  
 50

&lt;210&gt; 4964

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4492

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4964

Trp Ser Val Gln Pro His Ser Asp Ile Thr Met Arg Ser Trp Ile Ser  
 1 5 10 15

Ile Pro Trp Gly Gly Pro Val Arg His Leu Leu His Pro Trp Asn Trp  
 20 25 30

Ile Ile Leu Glu Xaa Lys Pro Gly Thr  
 35 40

&lt;210&gt; 4965

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4965

Gly Arg Arg Gln Ser Ser Gly Ser Ser Ser Pro Ala Ala Tyr Gly Thr  
 1 5 10 15

Leu Pro Cys Leu Asp Pro Ser Ile Arg Lys Thr Tyr Pro Ser Thr Thr  
 20 25 30

Gly Lys Ser Ala Asn Leu Asn Pro Lys Met Ala Met Ile Ser Val Cys  
 35 40 45

Glu Thr Ser  
 50

&lt;210&gt; 4966

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4966

Ile Phe Leu Val Phe Cys Lys Leu Ser Val Ile Phe Ser Ser Leu Leu  
 1 5 10 15

Arg Lys Met Ala Thr Gln Met Val Ala Ala Gln Leu Ala Ser Met Val  
 20 25 30

Trp Asn Asn Pro Ser Gln Gln Gln Phe Met Gln Phe Gly Gly Ser Ser  
 35 40 45

4493

Gly Ser Gln Leu Pro Gln Ile Gln Thr Asp Val Val Leu Pro Ser Cys  
 50 55 60  
 Lys Lys Lys Ala Pro Ala Glu Thr Pro Val Lys Glu Arg Leu Phe Ile  
 65 70 75 80  
 Val Phe Asn Pro His Pro Leu Pro Leu Asp Val Leu Glu Asp Ile Phe  
 85 90 95  
 Cys Arg Phe Gly Asn Leu Ile Glu Val Tyr Leu Val Ser Gly Lys Asn  
 100 105 110  
 Val Gly Tyr Ala Lys Tyr Ala Asp Arg Ile Ser Ala Asn Asp Ala Ile  
 115 120 125  
 Ala Thr Leu His Gly Lys Ile Leu Asn Gly Val Arg Leu Lys Val Met  
 130 135 140  
 Leu Ala Asp Ser Pro Arg Glu Glu Ser Asn Lys Arg Gln Arg Thr Tyr  
 145 150 155 160

<210> 4967  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 4967  
 Lys Ser Glu Thr Pro Ser Gln Glu Lys Lys Lys Lys Val Tyr Ser  
 1 5 10 15  
 Asn Arg Gln Ile Arg Gly Leu Arg Asp Pro Pro Leu Leu Leu Leu Pro  
 20 25 30  
 Glu Val Cys Arg Thr Val Tyr Arg Tyr Leu Leu Asp Arg Cys Pro Leu  
 35 40 45  
 Ser Tyr Phe Ile Cys Thr Val Ile Leu  
 50 55

<210> 4968  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

4494

&lt;400&gt; 4968

Met Ser Lys Gly Thr Pro Leu Asn Thr Lys Thr Phe Ser Ser Trp Gln  
1 5 10 15  
Thr Tyr Leu Ala Arg Ser Trp Arg Arg Val Arg Phe Gln Thr Met Leu  
20 25 30  
Pro Phe Cys Pro Cys Gln Tyr Val Leu Thr Asp Cys Asp Ser Ala Val  
35 40 45  
Asn Thr His Thr His Thr Gln Thr His Thr Gln Ala Pro Ser Val Tyr  
50 55 60  
Asp Gln Asp Lys  
65

&lt;210&gt; 4969

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4969

Pro Val Ser Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
1 5 10 15  
Lys Lys Ser Pro Gly Val Pro Asn Ser Val Phe Pro Glu Glu Glu Asp  
20 25 30  
Leu Ser Tyr Leu Leu Lys Gln Arg Ser Pro Phe Pro Val Val Ser Leu  
35 40 45  
Leu

&lt;210&gt; 4970

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4970

Ala Arg Thr Lys Lys Ile Pro Phe Leu Gly Val Cys Leu Gly Met Gln  
1 5 10 15  
Leu Ala Val Ile Glu Phe Ala Arg Asn Cys Leu Asn Leu Lys Asp Ala  
20 25 30

## 4495

Asp Ser Thr Glu Phe Arg Pro Asn Ala Pro Val Pro Leu Val Ile Asp  
 35 40 45  
 Met Pro Glu His Asn Pro Gly Asn Leu Gly Gly Thr Met Arg Leu Gly  
 50 55 60  
 Ile Arg Arg Thr Val Phe Lys Thr Glu Asn Ser Ile Leu Arg Lys Leu  
 65 70 75 80  
 Tyr Gly Asp Val Pro Phe Ile Glu Glu Arg His Arg His Arg Phe Glu  
 85 90 95  
 Val Asn Pro Asn Leu Ile Lys Gln Phe Glu Gln Asn Asp Leu Ser Phe  
 100 105 110  
 Val Gly Gln Asp Val Asp Gly Asp Arg Met Glu Ile Ile Glu Leu Ala  
 115 120 125  
 Asn His Pro Tyr Phe Val Gly Val Gln Phe His Pro Glu Phe Ser Ser  
 130 135 140  
 Arg Pro Met Lys Pro Ser Pro Pro Tyr Leu Gly Leu Leu Leu Ala Ala  
 145 150 155 160  
 Thr Gly Asn Leu Asn Ala Tyr Leu Gln Gln Gly Cys Lys Leu Ser Ser  
 165 170 175  
 Ser Asp Arg Tyr Ser Asp Ala Ser Asp Asp Ser Phe Ser Glu Pro Arg  
 180 185 190  
 Ile Ala Glu Leu Glu Ile Ser  
 195

&lt;210&gt; 4971

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4971

## 4496

Ala Ser Pro Gly Leu Gly Gly Ala Gln Ser Ser Val Leu His Asn Gly  
 1 5 10 15  
 Phe Phe His Gly Ser Pro Gly Glu Leu Leu Tyr Thr Gln Lys Ile Gln  
 20 25 30  
 Pro Leu Pro Ala Leu Ser Pro Phe Ser Leu Leu Leu Pro Phe Pro Met  
 35 40 45  
 Pro Arg Ser Arg Gln Xaa Leu Thr Phe Arg Thr Ser Ile Ala Xaa Leu  
 50 55 60  
 Ile Leu Arg Pro Leu Phe Lys Gly Gly  
 65 70

&lt;210&gt; 4972

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4972

Lys Ser Pro Gln Cys His Cys Leu Asp Leu Leu Glu Lys Tyr Gly Gln  
 1 5 10 15  
 Gly Gly Asn Cys Thr Glu Gly Arg Met Val Phe Ser Tyr His Asn Ser  
 20 25 30  
 Phe Leu Ile Ala Asp Arg Asn Glu Ala Trp Ile Leu Glu Thr Ala Gly  
 35 40 45  
 Lys Tyr Trp Ala Ala Glu Lys Val Gln Glu Gly Val Arg Asn Ile Ser  
 50 55 60  
 Asn Gln Leu Ser Ile Thr Thr Lys Ile Ala Arg Glu His Pro Asp Met  
 65 70 75 80  
 Arg Asn Tyr Ala Lys Arg Lys Gly Trp Trp Asp Gly Lys Lys Glu Phe  
 85 90 95  
 Asp Phe Ala Ala Ala Tyr Ser Tyr Leu Asp Thr Ala Lys Met Met Thr  
 100 105 110  
 Ser Ser Gly Arg Tyr Cys Glu Gly Tyr Lys Leu Leu Asn Lys His Lys  
 115 120 125  
 Gly Asn Ile Thr Phe Glu Thr Met Met Glu Ile Leu Arg Asp Lys Pro  
 130 135 140  
 Ser Gly Ile Asn Met Glu Gly Glu Phe Leu Thr Thr Ala Ser Met Val



## 4497

145                      150                      155                      160  
 Ser Ile Leu Pro Gln Asp Ser Ser Leu Pro Cys Ile His Phe Phe Thr  
                                  165                      170                      175  
 Gly Thr Pro Asp Pro Glu Arg Ser Val Phe Lys Pro Phe Ile Phe Val  
                                  180                      185                      190  
 Pro His Ile Ser Gln Leu Leu Asp Thr Ser Ser Pro Thr Phe Glu Leu  
                                  195                      200                      205  
 Glu Asp Leu Val Lys Lys Lys Ser His Phe Lys Pro Asp Arg Arg His  
                                  210                      215                      220  
 Pro Leu Tyr Gln Lys His Gln Gln Ala Leu Glu Val Val Asn Asn Asn  
                                  225                      230                      235                      240  
 Glu Glu Lys Ala Lys Ile Met Leu Asp Asn Met Arg Lys Leu Glu Lys  
                                  245                      250                      255  
 Glu Leu Phe Arg Glu Met Glu Ser Ile Leu Gln Asn Lys His Leu Asp  
                                  260                      265                      270  
 Val Glu Lys Ile Val Asn Leu Phe Pro Gln Cys Thr Lys Asp Glu Ile  
                                  275                      280                      285  
 Gln Ile Tyr Gln Ser Asn Leu Ser Val Lys Val Ser Ser  
                                  290                      295                      300

&lt;210&gt; 4973

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4973

Glu Leu Gln Gly Asn Glu Met Leu Gly Asp Leu Gln Ser Phe Leu Gly  
   1                                  5                                  10                                  15  
 Ala Val Arg Ala Val Met Leu Asp Val Lys Ser Val Thr Trp Lys Ala  
                                   20                                  25                                  30  
 Asn Trp Lys Pro Trp Met Lys Val Tyr His Ala Gln Asn Thr Lys Lys  
                                   35                                  40                                  45  
 Asp Lys Ser Arg Arg His Arg Ala Ser Val Gly Phe Pro Glu Glu Glu  
                                   50                                  55                                  60  
 Thr Ala  
   65

4498

&lt;210&gt; 4974

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4974

Cys Leu Thr Ser Leu Phe Ile Leu Asp Leu Asn Phe Ser Phe Leu Pro  
1 5 10 15

Ser Pro Phe Thr Ser Ile Arg Arg Leu His His His Phe Phe Gly Pro  
20 25 30

Leu Thr Leu Leu Ser Phe Pro Phe Ser Phe Ser Phe Phe Asn Arg Met  
35 40 45

Ser Ser Ile Leu Ser Leu His Ser Pro Pro Asp Ala Val Asp Ser Ala  
50 55 60

Met Leu Trp Ile  
65

&lt;210&gt; 4975

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4975

Cys Phe Ser Pro Phe Leu Gln Met Phe Val Ser Ser Ser Gly Leu Pro  
1 5 10 15

Pro Ser Pro Val Pro Ser Pro Arg Arg Phe Ser Ser Arg Arg Ser Gln

4499

Lys

```
<210> 4976
<211> 54
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 4976  
Glu Arg Val Gln Val Asn Ala Asn Asp Val Leu Ala Thr Phe Ser Gln  
1 5 10 15

Lys Ile Leu His Trp Asn Thr Asp Cys Asn Ile Lys Leu Leu Cys Val  
20 25 30

## 4500

Tyr Cys Phe Tyr Xaa Cys Ile His Arg Xaa Val Phe Tyr Arg Tyr Ile  
           35                                  40                                  45

Arg Ser Met Ala Leu Xaa  
           50

<210> 4977

<211> 78

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4977

Val Ile Ala Val Gln Glu Pro Gly Val Pro Ser Arg Asp Pro Cys Leu  
       1                                  5                                  10                                  15

Glu Ala Gln Glu Arg Pro Ala Ala Ser Met Pro Trp Asp Ala Arg Arg  
                                   20                                  25                                  30

Pro Gly Gly Gly Ala Asp Gly Gly Pro Glu Ala Ser Gly Ala Ala Arg  
                                   35                                  40                                  45

Ser Arg Ala Gln Lys Gln Cys Arg Lys Ser Ser Phe Ala Phe Tyr Gln  
           50                                  55                                  60

Ala Val Arg Asp Leu Leu Pro Val Trp Leu Leu Gly Xaa Tyr  
       65                                  70                                  75

<210> 4978

<211> 141

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4978

Arg Glu Gln Pro Ala Gly His Thr Pro Leu Pro Val Pro Ala Xaa Gln  
       1                                  5                                  10                                  15

## 4501

Pro Val Asp Tyr Phe Ile Leu Ile Leu Gln Gly Arg Val Glu Val Glu  
                   20                                  25                                  30  
 Ile Gly Lys Glu Gly Leu Lys Phe Glu Asn Gly Ala Phe Thr Tyr Tyr  
                   35                                  40                                  45  
 Gly Val Ser Ala Leu Thr Val Pro Ser Ser Val His Gln Ser Pro Val  
                   50                                  55                                  60  
 Ser Ser Leu Gln Pro Ile Arg His Asp Leu Gln Pro Asp Pro Gly Asp  
                   65                                  70                                  75                                  80  
 Gly Thr His Ser Ser Ala Tyr Cys Pro Asp Tyr Thr Val Arg Arg Ser  
                                   85                                  90                                  95  
 Leu Ile Cys Ser Ser Ser Arg Leu Arg Asp Cys Ser Thr Ser Met His  
                                   100                                  105                                  110  
 Ser Trp Leu Pro Glu Pro Arg Thr Cys His Ser Pro Leu Arg Thr Pro  
                   115                                  120                                  125  
 Thr Cys Ser Tyr Ser Arg Gln Pro Asp Gln Ala Pro Trp  
                   130                                  135                                  140

&lt;210&gt; 4979

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4979

Lys Asp Leu Asp Asn Gln Thr Ile Ile Val Gly Asn Phe Asn Thr Pro  
                   1                                  5                                  10                                  15  
 Leu Thr Val Leu Asp Arg Ser Leu Arg Gln Lys Thr Asn Lys Glu Met  
                   20                                  25                                  30  
 Leu Asp Leu Asn Ser Ala Leu Asn Gln Leu Lys Leu Ile Asp Lys Tyr  
                   35                                  40                                  45  
 Arg Thr Leu His Pro Lys Gly Met Leu Ile His Cys Trp Trp Lys Cys  
                   50                                  55                                  60  
 Lys Leu Val Gln Ala Leu Arg Lys Ala Val Trp Arg Phe Leu Lys  
                   65                                  70                                  75

&lt;210&gt; 4980

&lt;211&gt; 56

## 4502

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4980

Asp Pro Lys Cys Leu Gly Pro Lys Tyr Phe Gly Phe Phe Gln Ile Leu  
1 5 10 15  
Glu Tyr Leu His Tyr Thr Leu Met Ser Ile Ser Phe Glu His His Val  
20 25 30  
Gly Val Leu Lys Ala Ser Asp Phe Gly Ala Phe His Ile Leu Asp Phe  
35 40 45  
Gln Ile Arg Asp Ala Gln Pro Val  
50 55

&lt;210&gt; 4981

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4981

Gly Xaa Tyr Gln Ala Asn Ile Ala Glu Leu Thr His Ala Asn Asn Arg  
1 5 10 15  
Val Asp Gln Asn Glu Ala Glu Val Lys Lys Leu Arg Leu Arg Val Glu  
20 25 30  
Glu Leu Lys Gln Gly Leu Asn Gln Lys Glu Asp Glu Leu Asp Asp Ser  
35 40 45  
Leu Asn Gln Ile Arg Lys Leu Gln Arg Ser Leu Asp Glu Glu Lys Glu  
50 55 60  
Arg Asn Glu Asn Leu Glu Thr Glu Leu Arg His Leu Gln Asn Trp  
65 70 75

&lt;210&gt; 4982

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4503

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4982

Gly Pro His Pro Gly Gly Gly Pro Trp Gly Gly Asp Arg Glu Val Ala  
 1 5 10 15

Leu Lys Asn Thr Ala Val Leu Ile Leu His Ser Met Gly Pro His Pro  
 20 25 30

Gly Gly Gly Gly Gly Ser His Cys Ile Cys Trp Leu Arg Ala Pro Ala  
 35 40 45

Cys Ala Ser Arg Ala Pro Gly Leu Leu Cys Leu Leu Ser Val Pro Ile  
 50 55 60

Ser Ile Lys Gly Leu Pro Leu Gly Gly Gln Lys Lys Lys Lys Lys Lys  
 65 70 75 80

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 85 90 95

Lys Lys Lys Xaa Gly Xaa Pro Phe  
 100

&lt;210&gt; 4983

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4983

Arg Lys Lys Gln Ile Ala Leu Asn Ala Val Tyr Pro Lys Thr Arg Phe  
 1 5 10 15

Pro Gly Cys Pro Ser Thr Leu Tyr Arg Pro Pro Phe Trp Leu Leu Thr  
 20 25 30

Gln Cys Ile Phe Cys Tyr Ile Lys Met Gly Pro Arg Leu His Leu Leu  
 35 40 45

Arg Asn Tyr Lys Leu Leu Gly Val Gln Gly Cys Val Ser Tyr Ile Leu  
 50 55 60

4504

Pro  
65

<210> 4984  
<211> 96  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (95)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4984  
Gly Val Lys Glu Ser Gly Val Thr Asn Val Val Ala Gly Ala Thr Leu  
1 5 10 15  
Lys Leu Cys Ser Val Pro Trp Lys Lys Glu Glu Glu Glu Glu Ala Lys  
20 25 30  
Leu Glu Gly Lys Ala Pro Gly Val Ser Ser Trp Asn Leu Arg Trp Glu  
35 40 45  
Glu Thr Leu Lys Val Ile Trp Ser Ser Ile Phe Gln Ser Met Phe His  
50 55 60  
Glu Leu Val Phe Gln Lys Trp Phe Pro Gly Leu Val Ser Gly Ser Ser  
65 70 75 80  
Met Arg Val Ala Val Val Tyr Phe Val His Arg Cys Ile Leu Xaa Asp  
85 90 95

<210> 4985  
<211> 77  
<212> PRT  
<213> Homo sapiens

<400> 4985  
Ala Ala Gly Ser Asn Ala Ser Gln Ala Glu His Ser Val Ser Arg Asp  
1 5 10 15  
Ser Cys Val Glu Gln Ile Arg Val His Ala Gln Val Pro Arg Leu Glu  
20 25 30



## 4505

Trp Leu Cys Gln Asn Pro Phe Lys Gly Phe Ser Phe Ser Leu Leu Gly  
                   35                  40                  45

Gln Asn Ile Leu Ser His Leu Gly Arg Phe Arg Met Gly Arg Ala Asn  
           50                  55                  60

Leu Asn Lys Arg Phe Phe Leu Tyr Pro Glu Ile Glu Gly  
       65                  70                  75

<210> 4986

<211> 287

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (189)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (193)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (201)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4986

Leu Leu Ala Pro Thr Arg Arg His Ser Pro Gly Ser Pro Ala Phe Ala  
       1                  5                  10                  15

Pro Ser Ser Arg Ala Thr Ala Met Cys Pro Arg Ala Ala Arg Ala Pro  
                   20                  25                  30

Ala Thr Leu Leu Leu Ala Leu Gly Ala Val Leu Trp Pro Ala Ala Gly  
           35                  40                  45

Ala Trp Glu Leu Thr Ile Leu His Thr Asn Asp Val His Ser Arg Leu  
       50                  55                  60

Glu Gln Thr Ser Glu Asp Ser Ser Lys Cys Val Asn Ala Ser Arg Cys  
       65                  70                  75                  80

Met Gly Gly Val Ala Arg Leu Phe Thr Lys Val Gln Gln Ile Arg Arg  
                   85                  90                  95

## 4506

Ala Glu Pro Asn Val Leu Leu Leu Asp Ala Gly Asp Gln Tyr Gln Gly  
100 105 110

Thr Ile Trp Phe Thr Val Tyr Lys Gly Ala Glu Val Ala His Phe Met  
115 120 125

Asn Ala Leu Arg Tyr Asp Ala Met Ala Leu Gly Asn His Glu Phe Asp  
130 135 140

Asn Gly Val Glu Gly Leu Ile Glu Pro Leu Leu Lys Glu Ala Lys Phe  
145 150 155 160

Pro Ile Leu Ser Ala Asn Ile Lys Ala Lys Gly Pro Leu Ala Ser Gln  
165 170 175

Ile Ser Gly Leu Tyr Leu Pro Tyr Lys Val Leu Pro Xaa Gly Asp Glu  
180 185 190

Xaa Val Gly Ile Val Gly Tyr Thr Xaa Lys Glu Thr Pro Phe Leu Ser  
195 200 205

Asn Pro Gly Thr Asn Leu Val Phe Glu Asp Glu Ile Thr Ala Leu Gln  
210 215 220

Pro Glu Val Asp Lys Leu Lys Thr Leu Asn Val Asn Lys Ile Ile Ala  
225 230 235 240

Leu Gly His Ser Gly Phe Glu Met Asp Lys Leu Ile Ala Gln Lys Val  
245 250 255

Arg Gly Val Asp Val Val Val Gly Gly His Ser Asn Thr Phe Leu Tyr  
260 265 270

Thr Gly Asn Cys Phe Lys Arg Ile Ala Trp Ala Arg Met Ser Arg  
275 280 285

&lt;210&gt; 4987

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4987

Tyr Ala Ser Leu Gln Cys Tyr Trp Ser Lys Cys Met Ser Ile Ser Gln  
1 5 10 15

Arg Leu Tyr Pro Cys Ser Leu Thr Leu Gly Asn Leu Lys Ala Leu Ile  
20 25 30

Leu Leu Leu Ser Pro His Lys Glu Val Leu Leu Ser Gly Gly Arg Ala

## 4507

35                      40                      45  
 Asp Val Gly His Pro Thr Glu Asn Phe Arg Asn His Val Arg Asp Asp  
     50                      55                      60  
 Ala Ser His Glu Arg Leu Arg Ala Ser Phe Arg Phe Gly Asn Ile Leu  
     65                      70                      75                      80  
 Lys

<210> 4988  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (66)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (110)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4988  
 Leu Ala Ser Ser Arg Gly Gln Arg Thr Asp Ile Leu Pro Thr Phe Gly  
     1                      5                      10                      15

Gly Pro Arg Glu Ala Pro Gly Ala Lys Val Leu Ala Leu Val Pro Gly  
                     20                      25                      30

Thr Gln Glu Met Pro Ser Pro Val Gly Leu Leu Arg Ala Leu Pro Leu  
                     35                      40                      45

Pro Trp Pro Gln Phe Leu Ala Cys Thr Leu Arg Arg Leu Ala Gly Pro  
     50                      55                      60

Arg Xaa Ser Thr Gly Pro Ser Gln Lys Pro Pro Pro Leu Cys Ser Val  
     65                      70                      75                      80

Pro Cys Arg Val Pro Ala Asn Asp Gly Gly Gly Gly Pro Gly Lys Pro  
                     85                      90                      95

4508

Ser Ser Ala Leu Trp Thr Xaa Ser Ala Cys Tyr Ser Glu Xaa Gly Leu  
100 105 110

Glu Thr Ser Ser Ser Arg Ser  
115

&lt;210&gt; 4989

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4989

Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala Leu Glu Leu  
1 5 10 15

Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Ala Thr Val Pro  
20 25 30

Gly Leu Pro Trp Leu Phe Ser  
35

&lt;210&gt; 4990

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4990

Ala Phe Tyr Cys Arg Pro Ser Pro Glu Lys Gly Ala Arg Val Phe Pro  
1 5 10 15

Glu Pro Arg Cys Gln Gly Pro Arg Thr Pro Phe Thr Ala Asp Pro Leu  
20 25 30

Gln Arg Leu Gly Arg Gly Leu Trp Arg Thr Trp Phe Leu Leu Thr Val  
35 40 45

Leu Pro Leu Gly Pro Pro Ser Gln Thr Gln Thr Ile Gln Asp Pro Leu  
50 55 60

Ser Val Arg Pro Asn Gly Asn Ser Glu Ala Val Ile Phe Pro Pro Leu  
65 70 75 80

Pro Leu His Ser Leu Val Phe Cys Pro Leu Leu Cys Ser Ser Leu Pro  
85 90 95

Pro

4509

&lt;210&gt; 4991

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4991

Met Glu Lys Leu Val Leu Asp His Asp Gly Lys Gly Val Leu Glu Leu  
 1 5 10 15

Leu Pro Phe Gly Ile Thr Asp Arg Thr Asp Phe Leu Ser Leu Ile Arg  
 20 25 30

Asn Ile Tyr Asn Leu Phe Ser Lys Ser Ala Thr Arg Arg Leu His Leu  
 35 40 45

His Asp Lys Thr Leu Val Ser Thr Thr Pro Tyr Leu Asn Pro Asp Ser  
 50 55 60

Pro Lys Phe Leu Asp Asn Asn Leu Thr Xaa Ser Ile His Ala Asn Gln  
 65 70 75 80

&lt;210&gt; 4992

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4992

Leu Phe Pro Thr His Pro Lys Pro Arg Thr Arg Leu Phe Ser Leu Ser  
 1 5 10 15

Ser Gly Arg Met Arg Arg Ala Gly Leu Gly Glu Gly Val Pro Pro Gly  
 20 25 30

Asn Tyr Gly Asn Tyr Gly Tyr Ala Asn Ser Gly Tyr Ser Ala Cys Glu  
 35 40 45

Glu Glu Asn Glu Arg Leu Thr Glu Ser Leu Arg Ser Lys Val Thr Ala

## 4510

50		55		60
Ile Lys Ser Leu Ser Ile Glu Ile Gly His Glu Val Lys Thr Gln Asn				
65		70		75
Lys Leu Leu Ala Glu Met Asp Ser Gln Phe Asp Ser Thr Thr Gly Phe				
	85		90	95
Leu Gly Lys Thr Met Gly Lys Leu Lys Ile Leu Ser Arg Gly Ser Gln				
	100		105	110
Thr Lys Leu Leu Cys Tyr Met Met Leu Phe Ser Leu Phe Val Phe Phe				
	115		120	125
Ile Ile Tyr Trp Ile Ile Lys Leu Arg				
	130		135	

&lt;210&gt; 4993

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4993

Ser Thr Leu Leu Leu Leu Pro Leu Pro Val Arg Pro Ala Phe Gly Glu				
1		5		10
Lys Val Arg Leu Glu Leu Arg Arg Ala Ala Asn Pro Thr Val Pro Phe				
	20		25	30
Arg Cys Leu Val Leu Pro Leu Gln Pro Arg Thr Leu Thr Phe Lys Arg				
	35		40	45
Val Thr Ala Gly Arg Gln Gly Arg Gly Ser Arg Thr Leu Ser Glu Cys				
	50		55	60
Leu Ala Val Pro Trp Pro Val Arg Ala Ser Trp Leu Thr Phe Gln Leu				
	65		70	75
Ala Glu Leu Trp Asp Thr Ser Phe Leu Val Ser Cys Ala Arg Ser Tyr				
	85		90	95
Gly Lys Arg Glu Leu Gln Leu Arg Phe Ser Ser Ser Gln Thr Val Lys				
	100		105	110

## 4511

&lt;210&gt; 4994

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4994

His Val Ala Leu Trp Leu Lys Phe Phe Asn Leu Glu Met Thr Gln Thr  
1 5 10 15

His Arg Arg Cys Ser Asn Thr Thr Tyr Ser Ala Asn Leu Gly Lys Gly  
20 25 30

Thr Ser Gln Leu Ala Arg Phe Pro His Tyr Leu Pro Cys Ile His Ala  
35 40 45

Ala His Val Phe Phe Ile Arg Met Leu Val Lys Phe Trp Leu Leu Tyr  
50 55 60

Ile

65

&lt;210&gt; 4995

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4995

Leu Lys Xaa Cys Val Cys Met Gln Thr Tyr Val Asn Thr His Ile His  
1 5 10 15

Ile Gly Tyr Asp Asp Asp Asn Tyr Leu Leu Gln Ile Arg Cys Leu Leu  
20 25 30

Tyr Val Tyr

35

&lt;210&gt; 4996

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4996

## 4512

Lys Ile Ile Ser Thr Phe Ile Leu Phe Thr Asn Lys Leu Pro Phe Lys  
 1 5 10 15

Lys Ile Lys Pro His Tyr Leu Asn Ile Lys Leu Pro Asn Asn Ile Val  
 20 25 30

Leu Lys Cys Thr Ile Leu Thr  
 35

<210> 4997

<211> 157

<212> PRT

<213> Homo sapiens

<400> 4997

Ala Ala Ala Cys Gly Leu Glu Thr Arg Glu Asp Gly Arg Gly Arg Gly  
 1 5 10 15

Leu Leu Val Phe Tyr Gly Pro Ser Thr Pro Thr Thr Thr His Ser Ser  
 20 25 30

Trp Arg Pro Arg Ala Thr Val Gly Leu Leu Gly Ile Leu Arg Leu Arg  
 35 40 45

Leu Val Glu Thr Pro Gly Asp Gly Gly Ala Leu Gly His Ser Glu Thr  
 50 55 60

Ala Leu Gly Gly Ala Pro Tyr Trp Pro Asp Trp Ile Ser Gln Pro Ala  
 65 70 75 80

Thr Gln Pro Gln Ala Thr Arg Lys Lys Pro Asp Leu Gly Asn Ser Ser  
 85 90 95

Ser Ser Phe Phe Phe Phe Phe Leu Ile Ala Leu Gly Asn Phe Pro Asn  
 100 105 110

Leu Gly Pro Ser Ser Phe Ser Lys Leu Arg Ser His Gly Leu Ser Pro  
 115 120 125

Ala Ser Pro Val Cys Thr Arg Arg Arg Phe Ile Phe Ser Pro Leu Val  
 130 135 140

Ser Phe Tyr Cys Leu Leu Arg Pro Ser Ser Cys Ser His  
 145 150 155

<210> 4998

<211> 44



## 4513

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4998

Asn	Tyr	Arg	Ser	Lys	Leu	Phe	Val	Asp	Asn	Phe	Arg	Val	Lys	Phe	Asp
1				5					10					15	

Asn	Leu	Gly	Tyr	Leu	Pro	Asn	Phe	Lys	Ile	Glu	Val	Arg	Ile	Ser	Val
			20					25					30		

Thr	Gln	Pro	Trp	Glu	Xaa	Trp	Xaa	Ser	His	Ile	Arg
		35					40				

&lt;210&gt; 4999

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4999

Thr	Glu	Asp	Leu	Phe	Gly	Phe	Lys	His	Leu	Leu	Arg	Gln	Tyr	Leu	Leu
1				5					10					15	

Gly	Lys	Pro	Asn	Ile	Ala	Asn	Gly	Gln	Phe	Asp	Phe	Asn	Phe	Ser	Lys
			20					25					30		

Asp	Thr	Leu	Leu	Ser	Arg	Arg	Leu	Lys	Cys	Leu	His
		35						40			

&lt;210&gt; 5000

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4514

&lt;400&gt; 5000

Glu Xaa Val Leu Lys Pro Phe Ile Ser Phe Tyr Phe Ala Ile Cys Lys  
1 5 10 15

Cys Leu Leu Ser Ser Leu His Glu Val Ala Val Thr Phe Phe Thr Phe  
20 25 30

Lys Leu Pro Phe Tyr Phe  
35

&lt;210&gt; 5001

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5001

Pro Leu Leu Ser Leu His Val Ser Ile Glu Gly Ser Gly Ile Pro Gly  
1 5 10 15

Trp Gln Leu Met Asp Lys Arg His Tyr Ala Lys Ile Gln Phe Trp Ile  
20 25 30

Ser Tyr

&lt;210&gt; 5002

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5002

## 4515

Xaa Leu Gly Tyr Thr Xaa Xaa Lys Gly Thr Lys Ala Gly Val Thr Ala  
 1 5 10 15  
 Val Ala Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Trp  
 20 25 30  
 His Glu Pro Lys Gly Thr Gln Cys Gly Met Thr Lys Tyr Leu Leu Ser  
 35 40 45  
 Glu Ser Thr Ala Phe Thr Tyr Leu Pro Val Phe Lys Ile Phe Val Lys  
 50 55 60  
 Ser Tyr Lys Lys Leu Gln Phe Asp Gln Ile Trp Val Tyr Ala Val Cys  
 65 70 75 80  
 Tyr Pro Gln Arg His Phe Glu Ser Ser Cys Asp Ala Phe Asn Asn Val  
 85 90 95  
 Leu Ser Leu Leu Ile Pro Leu Ser Asn Leu Ile Trp Tyr Ser Gln Asn  
 100 105 110  
 Ser Tyr Ser Leu Arg Gly Asn  
 115

&lt;210&gt; 5003

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5003

Val Cys Ile Tyr Phe Phe Ser Lys Glu Thr Ala Tyr Ile Phe His Val  
 1 5 10 15

Ser Met Phe Leu Arg Pro Trp Val Thr Val Gly Ile Ala Leu Met Gly

## 4516

20	25	30
Ala Xaa Gln Ala Trp Gly Leu Val	Leu Ala Leu Asp Leu Glu Gln Gly	
35	40	45
Thr Ser Pro Ala Gly Leu Gln Phe Ser	Pro Leu Xaa Asn Glu Arg Xaa	
50	55	60
Glu Leu Ser Asp Leu Lys Ser Phe Gln		
65	70	

<210> 5004  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5004
Ile Ala Asn Ser Ser Leu Gly Leu Ala Leu Ser Val Asp Phe Ser Met
1 5 10 15
Leu Arg Arg Lys Pro Thr Arg Leu Glu Leu Lys Leu Asp Asp Ile Glu
20 25 30
Glu Phe Glu Asn Ile Arg Lys Asp Leu Glu Thr Arg Lys Lys Gln Lys
35 40 45
Glu Asp Val Glu Val Val Gly Gly Ser Asp Gly Glu Gly Ala Ile Gly
50 55 60
Leu Ser Ser Asp Pro Lys Ser Arg Glu Gln Met Ile Asn Asp Arg Ile
65 70 75 80
Gly Tyr Lys Pro Gln Pro Lys Pro Asn Asn Arg Ser Ser Gln Phe Gly
85 90 95
Ser Leu Glu Phe
100

<210> 5005  
 <211> 281  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (251)  
 <223> Xaa equals any of the naturally occurring L-amino acids

4517

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (263)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (277)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (278)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5005

Val	Leu	Leu	Leu	Gln	Lys	Asp	Ser	Leu	Leu	Thr	Ala	Ala	Gln	Leu	Lys
1				5					10					15	

Ala	Lys	Gly	Glu	Leu	Ser	Phe	Glu	Gln	Asp	Gln	Leu	Val	Ala	Gly	Gly
			20					25					30		

Gln	Leu	Gly	Glu	Leu	His	Asn	Gly	Thr	Gln	Tyr	Arg	Glu	Val	Arg	Gln
		35					40					45			

Phe	Cys	Ser	Gly	Ser	Gly	His	His	Leu	Val	Arg	Phe	Tyr	Phe	Leu	Thr
	50					55					60				

Arg	Val	Tyr	Ser	Glu	Tyr	Leu	Glu	Asp	Val	Leu	Glu	Glu	Leu	Thr	Tyr
65					70					75					80

Gly	Pro	Ala	Pro	Asp	Leu	Val	Ile	Ile	Asn	Ser	Cys	Leu	Trp	Asp	Leu
				85					90					95	

Ser	Arg	Tyr	Gly	Arg	Cys	Ser	Met	Glu	Ser	Tyr	Arg	Glu	Asn	Leu	Glu
			100					105					110		

Arg	Val	Phe	Val	Arg	Met	Asp	Gln	Val	Leu	Pro	Asp	Ser	Cys	Leu	Leu
		115					120					125			

Val	Trp	Asn	Met	Ala	Met	Pro	Leu	Gly	Glu	Arg	Ile	Thr	Gly	Gly	Phe
	130					135					140				

Leu	Leu	Pro	Glu	Leu	Gln	Pro	Leu	Ala	Gly	Ser	Leu	Arg	Arg	Asp	Val
145					150					155					160

Val	Glu	Gly	Asn	Phe	Tyr	Ser	Ala	Thr	Leu	Ala	Gly	Asp	His	Cys	Phe
			165						170					175	

Asp	Val	Leu	Asp	Leu	His	Phe	His	Phe	Arg	His	Ala	Val	Gln	His	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

180

190

Cys Met His Leu Xaa Xaa Pro Leu Arg  
275 280

Arg Tyr Tyr Leu Ile Ile Ile Lys Ile Arg Gly His Ser Phe Glu Pro  
1 5 10 15

## 4519

Ser Leu Thr Phe Gln Phe Lys Leu Gly Pro Xaa Pro Ser Lys Xaa Leu  
                   20                                  25                                  30

Gly Phe Arg His Xaa Pro Leu Val Leu Ala Gly Leu Xaa  
                   35                                  40                                  45

<210> 5007

<211> 95

<212> PRT

<213> Homo sapiens

<400> 5007

Asn Met Tyr Gly Thr Ser Cys Leu Ile Leu His Val Thr Ser Leu Leu  
   1                                  5                                  10                                  15

Tyr Ile Asp Glu Val Leu Val Thr Leu Ser Ser Asn Thr Leu Pro Leu  
                   20                                  25                                  30

Leu Phe Arg Glu Cys Leu Arg Asp Phe Leu Tyr Trp Phe Tyr Tyr Ser  
                   35                                  40                                  45

Asp Tyr Gly Leu Asp Leu Ser Ile Leu Leu Leu Pro Pro Gly Phe Leu  
                   50                                  55                                  60

Ile Ile His Pro Ser Lys Leu Ile Phe Cys Glu Ala Phe Val Ser Gln  
   65                                  70                                  75                                  80

Ile Lys Thr Leu Leu Glu Pro Lys Val Val Ala Asp Gly Tyr Leu  
                                   85                                  90                                  95

<210> 5008

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5008

Leu Pro Lys Gln Ile Leu Asp Arg His Cys Ile Tyr Trp Tyr Gly Ser  
   1                                  5                                  10                                  15

Gly Leu Tyr Gly Val Val Cys Thr His Leu Gly Leu Phe Ser Leu Asn  
                   20                                  25                                  30

Pro Ala Pro Asn Glu Ser Gly Gly Arg Val His Ser Ile Ser Phe Asn  
                   35                                  40                                  45

Val Val Met His His Lys Leu Asn Ile Arg Met Lys Met Lys Leu Asp  
                   50                                  55                                  60

4520

Phe Asp Val Ser Leu Lys Pro Phe Pro Cys Pro Ile His Ser Pro Pro  
65 70 75 80

Pro Pro

<210> 5009

<211> 83

<212> PRT

<213> Homo sapiens

<400> 5009

Ser Leu Ser Ser Pro Ala Val Lys Met Leu Ile Met Ile Leu Thr Leu  
1 5 10 15

Lys Ile Arg Pro His Lys Glu Gln Gly Asn Ser Arg Gly Gly Thr Gln  
20 25 30

Leu Gly Glu Ser Arg Pro Gly Gln Gly Lys Glu Thr His Lys Pro Asn  
35 40 45

Arg Ala Ala Leu Gly Lys Val Leu Ile Ser Trp Cys Cys Phe Leu Ser  
50 55 60

His Met Pro Ile Pro Gln Ala Val Pro Leu Ser Trp Leu Cys Arg Met  
65 70 75 80

Ser Ser Ser

<210> 5010

<211> 76

<212> PRT

<213> Homo sapiens

<400> 5010

Tyr Pro Ser Val Thr Ser Gly Thr Phe Arg Arg Lys Pro Asn Ser Ser  
1 5 10 15

Val Trp Cys Thr Arg Ser Ser Asp Val Phe Pro Pro Pro Asn Val Leu  
20 25 30

Val Lys Gln Thr Tyr Thr Ser Ser Glu Ala Thr Phe Gly Gln Ala Ser  
35 40 45

Arg Leu Gly Lys Cys Cys Thr Leu Cys Ile Lys Cys Ala Ser His Pro



## 4521

50                                      55                                      60  
 Ser Pro Leu Gly Lys Phe Leu Cys Ile Leu Gln Ala  
 65                                      70                                      75  
  
 <210> 5011  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> SITE  
 <222> (69)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 5011  
 Pro Ile Ile Pro Met Phe Thr Gln Asn Ile Arg Glu Gly Phe Arg Ser  
 1                                      5                                      10                                      15  
 Leu Gly Gly Thr Arg Leu Phe Arg Trp Leu Tyr Glu Lys Phe Arg Tyr  
                                     20                                      25                                      30  
 Pro Phe Ala Pro Met Tyr Gly Gly Phe Pro Val Lys Leu Arg Thr Tyr  
                                     35                                      40                                      45  
 Leu Gly Asp Pro Ile Pro Tyr Asp Pro Gln Ile Thr Ala Glu Glu Leu  
                                     50                                      55                                      60  
 Ala Glu Lys Thr Xaa Asn Ala Val Gln Ala Leu Ile Asp Lys His Gln  
 65                                      70                                      75                                      80  
 Arg Ile Pro Gly Asn Ile Met Ser Ala Leu Leu Glu Arg Phe His  
                                     85                                      90                                      95

<210> 5012  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 5012  
 Ala Ala Arg Ala Leu Ser Leu Ser Leu Ser Pro Glu Val Asp Phe Pro  
 1                                      5                                      10                                      15  
 Val Pro Pro Gly Arg Gly Arg Ser Val Glu Ser Val Gln Ser Gln Pro  
                                     20                                      25                                      30  
 Gln Glu Pro Val Ser Val Pro Gln Thr Leu Thr Ser Thr Leu Glu His

4522

35                      40                      45  
 Ile Val Gly Gln Leu Asp Val Leu Thr Gln Thr Val Ser Ile Leu Glu  
     50                      55                      60  
 Gln Arg Leu Thr Leu Thr Glu Asp Lys Leu Lys Gln Cys Leu Glu Asn  
     65                      70                      75                      80  
 Gln Gln Leu Ile Met Gln Arg Ala Thr Pro  
                             85                      90

&lt;210&gt; 5013

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5013

His Glu Leu Arg Arg Arg Met Leu Glu Ala Ala Asp Phe Ala Ala Arg  
     1                      5                      10                      15  
 Lys His Arg Gln Gln Arg Arg Lys Asp Pro Glu Gly Thr Pro Tyr Ile  
                             20                      25                      30  
 Asn His Pro Ile Gly Val Ala Arg Ile Leu Thr His Glu Ala Gly Ile  
                             35                      40                      45  
 Thr Asp Ile Val Val Leu Gln Ala Ala Leu Leu His Asp Thr Val Glu  
     50                      55                      60  
 Asp Thr Asp Thr Thr Leu Asp Glu Val Glu Leu His Phe Gly Ala Gln  
     65                      70                      75                      80  
 Val Arg Arg Leu Val Glu Glu Val Thr Asp Asp Lys Thr Leu Pro Lys  
                             85                      90                      95  
 Leu Glu Arg Lys Arg Leu Gln Val Glu Gln Ala Pro His Ser Ser Pro  
                             100                      105                      110  
 Gly Ala Lys Leu Val Lys Leu Ala Asp Lys Leu Tyr Asn Leu Arg Asp  
                             115                      120                      125  
 Leu Asn Arg Cys Thr Pro Glu Gly Trp Ser Glu His Arg Val Gln Glu  
     130                      135                      140  
 Tyr Phe Glu Trp Ala Ala Gln Val Val Lys Gly Leu Gln Gly Thr Asn  
     145                      150                      155                      160  
 Arg Gln Leu Glu Glu Ala Leu Lys His Leu Phe Lys Gln Arg Gly Leu  
                             165                      170                      175

4523

Thr Ile

&lt;210&gt; 5014

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5014

Thr	Ile	Phe	Ala	Val	Met	Xaa	Ser	Phe	Asn	Val	Ser	Phe	Gln	Xaa	Gly
1				5					10					15	

Pro	Ile	Lys	Val	Phe	Leu	Tyr	Leu	Val	Asn	Lys	Asp	His	Ser	Cys	Gly
			20					25					30		

Leu	Val	Arg	Gly	Cys	Ile	His	Arg	Leu	Trp	Glu	Ala	Val	Val	Cys	Val
		35					40					45			

Cys	Val	Ser	Ile	Ser	Ile	Phe	Tyr	Val	Tyr	Asn	Ser	Ala	Tyr
	50					55					60		

&lt;210&gt; 5015

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5015

Ser	Thr	Ala	Leu	Gly	Ala	Gly	Gly	Ala	Phe	Ser	Val	Pro	Leu	Leu	Ser
1				5					10					15	

Leu	Leu	Ser	Ala	Ser	Leu	Val	Leu	Pro	Ala	His	Phe	His	Asn	Val	Leu
			20					25					30		

Leu	Gly	Cys	Ile	Gly	Ile	Val	Cys	Cys	Leu	Asp	Pro	Trp	Pro	Arg	Leu
		35					40					45			

## 4524

Ser Leu Pro Val Arg Glu Thr Lys Leu Thr Thr Lys Gly Phe Cys Gln  
           50                          55                          60

Ile Ala Phe Ile Tyr Arg Ile Cys Pro Phe Met Cys Leu Cys Val Tyr  
       65                          70                          75                          80

Gly Leu Asn Gly Phe Leu Thr Ser Lys Lys  
                           85                          90

<210> 5016

<211> 51

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5016

Val Tyr Arg Val Leu Lys Pro Leu Lys Xaa Asn Ala Asn Xaa Ala Lys  
       1                          5                          10                          15

Ser Leu Leu Leu Thr Thr Ile Pro Gln Ile Gly Ser Thr Glu Trp Ser  
                           20                          25                          30

Glu Thr Leu Xaa Asn Leu Lys Asn Met Ala Gln Phe Ser Val Leu Leu  
           35                          40                          45

Pro Arg His

50

<210> 5017

<211> 333

<212> PRT

<213> Homo sapiens

4525

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5017

Gly	Arg	Arg	Ala	Gln	Arg	Ser	Thr	Pro	Arg	Ser	Leu	Ala	Arg	Val	Ser
1				5				10					15		

Gln	Arg	Gly	Pro	Thr	Arg	Tyr	Ala	Asp	Ala	Pro	Thr	Pro	Ile	Arg	Pro
			20				25						30		

Ser	Gln	Asp	Ser	Thr	Met	Thr	Leu	Asn	Asn	Val	Thr	Met	Arg	Gln	Gly
		35					40					45			

Thr	Val	Gly	Met	Gln	Pro	Gln	Gln	Gln	Arg	Trp	Ser	Ile	Pro	Ala	Asp
	50					55					60				

Gly	Arg	His	Leu	Met	Val	Gln	Lys	Glu	Pro	His	Gln	Tyr	Ser	His	Arg
65					70					75					80

Asn	Arg	His	Ser	Ala	Thr	Pro	Glu	Asp	His	Cys	Arg	Arg	Ser	Trp	Ser
				85					90					95	

Ser	Asp	Ser	Thr	Asp	Ser	Val	Ile	Ser	Ser	Glu	Ser	Gly	Asn	Thr	Tyr
			100					105					110		

Tyr	Arg	Val	Val	Leu	Ile	Gly	Glu	Gln	Gly	Val	Gly	Lys	Ser	Thr	Leu
		115					120					125			

Ala	Asn	Ile	Phe	Ala	Gly	Val	His	Asp	Ser	Met	Asp	Ser	Asp	Cys	Xaa
		130				135					140				

Val	Leu	Gly	Glu	Asp	Thr	Tyr	Glu	Arg	Thr	Leu	Met	Val	Asp	Gly	Glu
145					150					155					160

Ser	Ala	Thr	Ile	Ile	Leu	Leu	Asp	Met	Trp	Glu	Asn	Lys	Gly	Glu	Asn
				165					170					175	

Glu	Trp	Leu	His	Asp	His	Cys	Met	Gln	Val	Gly	Asp	Ala	Tyr	Leu	Ile
			180					185					190		

Val	Tyr	Ser	Ile	Thr	Asp	Arg	Ala	Ser	Phe	Glu	Lys	Ala	Ser	Glu	Leu
		195					200					205			

Arg	Ile	Gln	Leu	Arg	Arg	Ala	Arg	Gln	Thr	Glu	Asp	Ile	Pro	Ile	Ile
	210					215					220				

Leu	Val	Gly	Asn	Lys	Ser	Asp	Leu	Val	Arg	Cys	Arg	Glu	Val	Ser	Val
225					230					235					240

## 4526

Ser Glu Gly Arg Ala Cys Ala Val Val Phe Asp Cys Lys Phe Ile Glu  
 245 250 255

Thr Ser Ala Ala Val Gln His Asn Val Lys Glu Leu Phe Glu Gly Ile  
 260 265 270

Val Arg Gln Val Arg Leu Arg Arg Asp Ser Lys Glu Lys Asn Glu Arg  
 275 280 285

Arg Leu Ala Tyr Gln Lys Arg Lys Glu Ser Met Pro Arg Lys Ala Arg  
 290 295 300

Arg Phe Trp Gly Lys Ile Val Ala Lys Asn Asn Lys Asn Met Ala Phe  
 305 310 315 320

Lys Leu Lys Ser Lys Ser Cys His Asp Leu Ser Val Leu  
 325 330

&lt;210&gt; 5018

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5018

Glu Pro Leu Trp Glu Asn Leu Phe Leu Pro Pro Leu Gly Lys Gln Lys  
 1 5 10 15

Asn Phe Ser Val Phe Gly Glu Tyr Phe Arg Asn Ser Asn Glu Arg His  
 20 25 30

Cys Phe Ser Cys Trp Leu Thr Gly Leu Lys Gly Ala Phe Val Leu Leu  
 35 40 45

Gly Gln Gly Glu Arg Gly Asp Pro Arg Lys Val Ser Leu Pro Glu Asp  
 50 55 60

Gly Gln Pro Pro Gly Leu Gln Leu Gln Val His Ile Thr Arg Thr Ala  
 65 70 75 80

Trp Gln Pro Gly Pro Pro Gly Ala His Ser Arg Gln Pro Leu Pro Arg  
 85 90 95

Gly Leu Ile Leu Gln  
 100

&lt;210&gt; 5019

&lt;211&gt; 52

4527

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5019

Arg Tyr Leu Ile Ser Leu Ser Cys Asn Leu Tyr Leu Gln Thr Gly Val  
1 5 10 15

Ser Asn Pro Ile Asn Leu Ile Ala Asp Ile Val Arg Lys Asn Glu Met  
20 25 30

Thr Ser Val Lys Thr Gln Asn Tyr Thr Tyr Lys Val Ser Arg Gln Asn  
35 40 45

Met Leu Leu Leu  
50

&lt;210&gt; 5020

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5020

Pro Val Asp Ser Cys Ala Val Ser Pro Gly Val Ala Lys Glu Ala Ala  
1 5 10 15

Ser Gly Ser Trp Gly Leu Val Ala Arg Ser Gln Gln Glu Cys Leu Leu  
20 25 30

Tyr Phe Val Arg Asp Ala Glu Gln Ile Ser Asn Ser Val Ala Val Met  
35 40 45

Leu Ala Ser  
50

&lt;210&gt; 5021

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5021

Thr Ser Ser Thr Ile Asn Cys Ser Leu Gly Thr Phe Tyr Ala Gln Asn  
1 5 10 15

Cys Ala Pro Ser Ser Glu Gln Gln Val Phe Asn Gly Pro Cys Asp Glu  
20 25 30

Lys Gly Pro Ile Lys Ala Ala Gly Met Gly His Ser Pro Thr Pro His

4528

35                                      40                                      45  
 Gly Pro Gly His Cys His Ser Cys Cys Pro Ala Ser Pro Gly Leu Trp  
     50                                      55                                      60  
 Leu His Gly Arg Ser His Phe Cys Lys Lys Phe Thr Phe Leu Lys  
     65                                      70                                      75

&lt;210&gt; 5022

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5022

Asn Leu Lys Pro Pro Leu Glu Pro Pro Phe Cys Arg Val Phe Gly Lys  
     1                                      5                                      10                                      15  
 Arg Lys Lys Gly Leu Cys Leu Arg Leu Trp Gly Arg Gly Asp Tyr Val  
                     20                                      25                                      30  
 Thr Ser Val Gln Thr Ala Gly Asn Leu Lys Thr Val Leu Ser Leu Phe  
                     35                                      40                                      45  
 Leu Tyr Ile Val Phe Ile Tyr Lys Lys Lys Arg Leu Arg Met His Ala  
     50                                      55                                      60  
 Lys Leu Leu Phe Ser Val Ser His Arg Pro Arg Trp Asn Val Lys  
     65                                      70                                      75

&lt;210&gt; 5023

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5023

Leu Leu Gln Val Asp Phe His Asn Met Gln Ser Gly Gly Gly Val Lys  
     1                                      5                                      10                                      15  
 Thr Asp Asp Thr Ser Thr Leu Asn Ser Leu Cys Gly Tyr Ala Trp Val  
                     20                                      25                                      30  
 Tyr Val Trp Glu Glu Lys Gln Arg Cys Arg Leu Ser Ser Phe Phe Ser  
                     35                                      40                                      45  
 Ser Ser Ala Ser Ile Pro Gly Leu Leu Pro Ser His Thr Leu Asp Leu  
     50                                      55                                      60



## 4529

Val Gln Asn Val Gly Val Val Leu Asp Glu Ala Leu Gly Trp Gly Arg  
65 70 75 80

Glu Arg Glu Leu Cys Val Lys Cys Leu Leu Glu Met His Cys Gly Val  
85 90 95

Phe Ser Cys Met Gly Asn His Leu Cys Gln Ala Phe Pro His Phe Pro  
100 105 110

Tyr Leu Ser His Leu Val Ser Cys Leu Cys Phe Gln Leu Cys Val Ile  
115 120 125

Leu Phe Ala Ser Cys Thr Lys Leu Ile Phe Ser Lys Val  
130 135 140

<210> 5024

<211> 30

<212> PRT

<213> Homo sapiens

<400> 5024

Gly Thr Arg Val Ser Asp Leu Ala Thr Ile Ser Leu Gly Ser Cys Gln  
1 5 10 15

Asn Leu Ile Phe Ser Leu Lys Thr Pro Ile Cys Ser His Ser  
20 25 30

<210> 5025

<211> 241

<212> PRT

<213> Homo sapiens

<400> 5025

Ile Phe Gly Met Ser Lys Leu Arg Met Val Leu Leu Glu Asp Ser Gly  
1 5 10 15

Ser Ala Asp Phe Arg Arg His Phe Val Asn Leu Ser Pro Phe Thr Ile  
20 25 30

Thr Val Val Leu Leu Leu Ser Ala Cys Phe Val Thr Ser Ser Leu Gly  
35 40 45

Gly Thr Asp Lys Glu Leu Arg Leu Val Asp Gly Glu Asn Lys Cys Ser  
50 55 60

Gly Arg Val Glu Val Lys Val Gln Glu Glu Trp Gly Thr Val Cys Asn  
65 70 75 80

## 4530

Asn Gly Trp Ser Met Glu Ala Val Ser Val Ile Cys Asn Gln Leu Gly  
                     85                    90                    95  
 Cys Pro Thr Ala Ile Lys Ala Pro Gly Trp Ala Asn Ser Ser Ala Gly  
                     100                    105                    110  
 Ser Gly Arg Ile Trp Met Asp His Val Ser Cys Arg Gly Asn Glu Ser  
                     115                    120                    125  
 Ala Leu Trp Asp Cys Lys His Asp Gly Trp Gly Lys His Ser Asn Cys  
                     130                    135                    140  
 Thr His Cys Glu Pro Arg Asn Ala Thr Pro Trp Lys Pro His Thr Leu  
 145                    150                    155                    160  
 Leu Ser Pro Ser Val Leu Ile Pro Val Leu Leu Thr Val Ser Pro Ser  
                     165                    170                    175  
 Trp Leu Phe Leu Glu Ser Leu Ser Phe Pro His Phe His Phe Leu Pro  
                     180                    185                    190  
 Leu Tyr Cys His Leu Trp Pro Gly Phe Ala Leu Leu Val Gln His Pro  
                     195                    200                    205  
 Gln Leu Gln His Leu Cys Leu Ser Ala Pro Ser Thr Arg Gln Lys Leu  
                     210                    215                    220  
 Thr Leu Glu Asn Ile Arg His Ser Glu Ser Arg Val Leu Gly Ser Asp  
 225                    230                    235                    240

Gly

<210> 5026

<211> 52

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

## 4531

&lt;400&gt; 5026

Ile Arg Gln Cys Val Lys His Trp His Thr Asn Ala Ala Lys Gly Ala  
 1 5 10 15

Glu Gly Arg Gln Trp Gly Gly Ala Gly Thr Gln Gln Gly Ala Leu Pro  
 20 25 30

Arg Asp Thr Leu Val Ile Phe Ser Thr Glu Xaa His Pro Xaa Ala Phe  
 35 40 45

Leu Gln His Leu  
 50

&lt;210&gt; 5027

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5027

Gly Gly Ser Glu Asp Gln Leu Glu Asp Pro Ala Leu Ser Gly Lys Ala  
 1 5 10 15

Trp Glu Cys Glu Met Gly Arg Arg Gly Trp Asp Leu Gly Gly Trp Gly  
 20 25 30

Gln Ala Leu Ser Pro Ser Leu Leu Ala Phe Gln Ser Leu Gly Arg Asn  
 35 40 45

Leu Ser Xaa Leu Pro Pro Leu Ser Leu Ala His Arg His Pro Ala Cys  
 50 55 60

Ile Ser Gln Glu Glu Val Glu Gly Thr Ser Leu Phe Pro Arg Asn Pro  
 65 70 75 80

Leu Tyr Pro His Pro Val Leu Cys Ser Ser Pro Arg Leu Leu Gly Leu  
 85 90 95

Arg Leu Leu Thr Ser Arg Arg Leu Arg Leu Val Cys Val Cys Leu Phe  
 100 105 110

Ala His Leu Trp Leu Ile Pro Arg Glu Pro Gly His Leu Leu Pro Asp  
 115 120 125

Ala His Pro Cys Gln Ser Phe Leu His Ser Pro Ser Gly Arg Trp Asp

## 4532

130                                      135                                      140  
 Val Arg Gln Pro Thr Leu Glu Asn Pro Glu Asn Arg Glu Gln Gly Phe  
 145                                      150                                      155                                      160  
 Ala Leu His Asn Ser Thr Pro Gln Ile Leu Ser Pro Gly His Arg Arg  
                                     165                                      170                                      175  
 Pro Thr Gly Gln Asp Pro Lys Ile Trp Gly Lys Glu Val Leu Arg Thr  
                                     180                                      185                                      190  
 Leu Arg Tyr Pro  
                                     195

&lt;210&gt; 5028

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5028

Met Phe Leu Asp Gly Gly Leu Pro Ser Ser Lys Leu Leu Pro Ile Cys  
 1                                      5                                      10                                      15  
 Thr Ser Val Leu Gly Gln Gly Lys Xaa Lys Ala Arg Ser Cys Lys Ser  
                                     20                                      25                                      30  
 His Ser Ser Gly Ser Gln Phe His Pro Gln Phe Lys Glu Leu Ser Arg  
                                     35                                      40                                      45  
 Gln Arg Gln Arg Leu Tyr Ser Thr His Val Gln Leu Lys Ala Gly Glu  
                                     50                                      55                                      60  
 Ala Lys Pro Gly Gln Arg Lys Gly Lys Gly Cys Val  
 65                                      70                                      75

&lt;210&gt; 5029

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 4533

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (87)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5029

Pro	Glu	Ile	Ala	Pro	Asn	Gly	Gln	Ser	Leu	Val	Lys	Gln	Leu	His	Glu
1				5					10					15	

Arg	Gln	Leu	Asp	Leu	Pro	Tyr	Leu	Pro	Leu	Lys	Arg	Pro	Lys	Trp	Thr
			20					25					30		

Asn	Xaa	Ser	Ser	Gln	Leu	Leu	Gly	Tyr	Phe	Thr	Leu	Ala	Leu	Tyr	Thr
		35					40					45			

Ser	Ala	Pro	Ser	Lys	Leu	Lys	Gly	Asp	Leu	Asn	Tyr	Leu	Arg	Leu	Glu
		50				55					60				

Trp	Gly	Pro	Asp	Phe	Gln	Gln	His	Glu	Ala	Gly	Leu	Ile	Gly	Ala	Asp
65					70					75					80

Glu	Val	Pro	Ile	Leu	Thr	Xaa	Ser	Ser	Ala	Glu	Leu	Ala	Gln	Gln	Gln
				85					90					95	

Ile	Ala	Met	Leu	Asn	Gly	Cys	Thr	Trp	Leu	Pro	Val	Ser	Trp	Ala	Arg
			100					105					110		

Lys	Lys	Gly	Gly	Leu	His	Thr	Val	Val	Asp	Ser	Thr	Thr	Leu	Ser	Arg
		115					120					125			

Pro	Leu
	130

&lt;210&gt; 5030

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5030

Leu	Val	His	Pro	Pro	Arg	Asn	Phe	Leu	Asp	Ala	Val	Arg	Ala	Arg	Trp
1				5					10					15	

Cys	Tyr	Leu	Glu	Leu	Lys	Lys	Leu	His	Ala	Ser	Val	Lys	Leu	Leu	Thr
			20					25					30		

Met	Ala	Lys	Asn	Lys	Leu	Arg	Gly	Pro	Lys	Ser	Arg	Asn	Val	Phe	His
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4534

35                      40                      45  
 Ile Ala Ser Gln Lys Asn Phe Lys Ala Lys Asn Lys Ala Lys Pro Val  
     50                      55                      60  
 Thr Thr Asn Leu Lys Lys Ile Asn Ile Met Asn Glu Glu Lys Val Asn  
     65                      70                      75                      80  
 Arg Val Asn Lys Ala Phe Val Asn Val Gln Lys Glu Leu Ala His Phe  
                     85                      90                      95  
 Ala Lys Ser Ile Ser Leu Glu Pro Leu Gln Lys Glu Leu Ile Pro Gln  
                     100                      105                      110  
 Gln Arg His Glu Ser Lys Pro Val Asn Val Asp Glu Ala Thr Arg Leu  
                     115                      120                      125  
 Met Ala Leu Leu  
     130

<210> 5031  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<400> 5031  
 Arg Glu Cys Val Cys Thr Phe Ser Leu Tyr Lys Gly Gln Gly Val Gly  
     1                      5                      10                      15  
 Gln Ile His His Arg Leu Ile Tyr Ile Phe Cys Cys Asp Phe Phe Gln  
                     20                      25                      30  
 Leu Tyr Asn Lys Cys Gln Leu Ile Val His Gly Thr Ile Tyr Phe Ser  
                     35                      40                      45  
 Thr Gln Phe Ile Val Leu Ser Arg Glu Arg Phe Ile Tyr Phe His Tyr  
     50                      55                      60  
 Leu Ala Leu Ser  
     65

<210> 5032  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<220>

4535

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5032

Pro Thr Arg Pro Ala Ser Xaa Gly Cys Gly Leu Pro Leu Ser Leu Leu  
 1 5 10 15

Arg Ala Val Thr Pro Val Pro Ala Ala Ile Arg Pro Gly Ala Pro Asp  
 20 25 30

Glu Ser Met Arg Gly Arg Ala Arg Gly Val Val Phe Pro Arg Thr Pro  
 35 40 45

Gly Gly Leu Pro Arg Pro Val Leu Cys Thr Ser Ser Pro Thr Lys Gly  
 50 55 60

Glu Thr Glu Ala Pro Arg Gly Val Gly Arg Ala Gly Trp Thr Ser Gly  
 65 70 75 80

Pro Ala Ala Gly Ala Val Val Arg Pro Leu Cys Arg Gly Gly Pro Leu  
 85 90 95

Gly Phe Arg Val Ser Ser Gly Lys Arg Leu Ala Gly Leu Val Gly Cys  
 100 105 110

Ala Ala Ile Leu Glu Thr Asp Asp Ser Ser Pro Xaa Asp Gly Phe Ala  
 115 120 125

Gly Ser Ala Pro Ala Ser Ala Pro Ile Phe Pro Ala Ala Pro  
 130 135 140

&lt;210&gt; 5033

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (242)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

4536

&lt;222&gt; (248)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (249)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5033

Arg	Val	Met	Ser	Ala	Val	Leu	Leu	Leu	Ala	Leu	Leu	Gly	Phe	Ile	Leu
1				5					10					15	

Pro	Leu	Pro	Gly	Val	Gln	Ala	Leu	Leu	Cys	Gln	Phe	Gly	Thr	Val	Gln
			20					25					30		

His	Val	Trp	Lys	Val	Ser	Asp	Leu	Pro	Arg	Gln	Trp	Thr	Pro	Lys	Asn
		35					40					45			

Thr	Ser	Cys	Asp	Ser	Gly	Leu	Gly	Cys	Gln	Asp	Thr	Leu	Met	Leu	Ile
	50					55					60				

Glu	Ser	Gly	Pro	Gln	Val	Ser	Leu	Val	Leu	Ser	Lys	Gly	Cys	Thr	Glu
65					70					75					80

Ala	Lys	Asp	Gln	Glu	Pro	Arg	Val	Thr	Glu	His	Arg	Met	Gly	Pro	Gly
				85					90					95	

Leu	Ser	Leu	Ile	Ser	Tyr	Thr	Phe	Val	Cys	Arg	Gln	Glu	Asp	Phe	Cys
		100						105					110		

Asn	Asn	Leu	Val	Asn	Ser	Leu	Pro	Leu	Trp	Ala	Pro	Gln	Pro	Pro	Ala
		115					120					125			

Asp	Pro	Gly	Ser	Leu	Arg	Cys	Pro	Val	Cys	Leu	Ser	Met	Glu	Gly	Cys
	130					135					140				

Leu	Glu	Gly	Thr	Thr	Glu	Glu	Ile	Cys	Pro	Lys	Gly	Thr	Thr	His	Cys
145					150					155					160

Tyr	Asp	Gly	Leu	Leu	Arg	Leu	Arg	Gly	Gly	Gly	Ile	Phe	Ser	Asn	Leu
			165					170						175	

Arg	Val	Gln	Gly	Cys	Met	Pro	Gln	Pro	Gly	Cys	Asn	Leu	Leu	Asn	Gly
		180						185					190		

Thr	Gln	Glu	Ile	Gly	Pro	Val	Gly	Met	Thr	Glu	Asn	Cys	Asn	Arg	Lys
		195					200					205			

Asp	Phe	Leu	Thr	Cys	His	Arg	Gly	Thr	Thr	Ile	Met	Thr	His	Gly	Asn
	210					215					220				



4537

Leu Ala Gln Glu Pro Thr Asp Trp Thr Thr Ser Asn Tyr Arg Asp Val  
 225 230 235 240

Arg Xaa Gly Ala Gly Val Ser Xaa Xaa Ala Ala Ala Pro Arg Cys  
 245 250 255

&lt;210&gt; 5034

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5034

His Glu Gly Arg Arg Lys Lys Trp Met Leu Glu Ser Cys Xaa Met Ser  
 1 5 10 15

Leu Trp Ile Ala Gln Lys Tyr Gln Leu Trp Leu Xaa Pro His Leu Ala  
 20 25 30

Phe Val Ser Met Lys Lys Pro Gly Thr Ile Ser Thr Thr Ile Ser Asp  
 35 40 45

His His Gln Pro Gln Ile Leu Gly Asn Leu Leu Glu Phe Phe Leu Asn  
 50 55 60

Val Leu Asn Ser Cys Trp Val Pro Gly Arg Phe Gln Arg Lys  
 65 70 75

&lt;210&gt; 5035

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4538

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5035

Phe Gly Ala Ser Ser Leu Ser Ser Cys Arg Pro Ile Thr Ile Val Pro  
1 5 10 15

Xaa Gly Lys Lys Trp Ser Pro Ala Pro Ser Pro Val Ala Leu Xaa Xaa  
20 25 30

Thr Gly Asn Pro Phe Gly  
35

&lt;210&gt; 5036

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

Ser Arg Pro Phe Glu Glu Ile Tyr Glu Trp Asp Ile Lys Gln Phe Ser  
1 5 10 15

Val Leu Gln Val Phe Phe Phe Phe Ser Lys Leu Phe Ala Val Ser Asn  
20 25 30

Cys Asn Gln Tyr Leu Leu Leu Ser Ile Cys Leu  
35 40

&lt;210&gt; 5037

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5037

Ala Gly Phe Ser Val Ile Ala Thr Phe Ala Tyr Phe Phe Pro Tyr Phe

[illegible]

<213> Homo sapiens

Gly Pro Arg Gln Gly Asp His Leu Arg Ser Gly Val Ser Thr Lys Asn  
1 5 10 15

Thr Lys Ile Arg Gln Val Trp Trp Trp Ala Pro Leu Arg Arg Leu Arg  
20 25 30

Gln Glu Asn His Leu Asn Pro Gly Gly Arg Gly Cys Ser Glu Pro Asp  
35 40 45

His Ala Ala Ala Leu Gln Pro Gly Arg Ser Pro Cys Val Leu Leu Gly  
50 55 60

Ala Gly Ala Val Thr Tyr Pro Leu Ser Phe Ser Leu Ala Ile Ser Val  
65 70 75 80

Val Ser Tyr Glu Ala Glu Ile Gly Lys Gly Tyr Met Gln Val Ser Gln  
85 90 95

Trp Thr Trp Pro Met Leu Gln Ala Pro Ser Ser Gln Val Gln Gln Cys  
100 105 110

Tyr His Leu Leu Leu Leu Gly Gly Gln Thr Arg His Pro His His Glu  
115 120 125

Gly Ala Ala Gly Thr Met Asn Tyr Val Asn Asn Pro Ser Leu Tyr Tyr  
130 135 140

## 4540

Arg Lys Gly Cys Ser His Met Arg Ile Gln Ser Thr Gln Ala Pro Trp  
 145 150 155 160

Pro Cys Ser Pro Leu Gln Pro Gln Gly Ser Gly Ser Pro Ile Trp Arg  
 165 170 175

<210> 5039

<211> 274

<212> PRT

<213> Homo sapiens

<400> 5039

Arg Gly Cys Gly Ser Cys Gly Tyr Lys Pro Ser Ala Gly Pro Ala Trp  
 1 5 10 15

Arg Pro Arg Pro Pro Pro Ala Val Ser Pro Leu Arg His Pro Glu Pro  
 20 25 30

Ala Lys Val Leu Ser Phe Ser Ser Cys Pro Leu Pro Ala Leu Gly Arg  
 35 40 45

Thr Gly Pro Ser Arg Ala Ala Arg Ala Gln Ser Leu Thr Met Ala Ser  
 50 55 60

Leu Phe Lys Lys Lys Thr Val Asp Asp Val Ile Lys Glu Gln Asn Arg  
 65 70 75 80

Glu Leu Arg Gly Thr Gln Arg Ala Ile Ile Arg Asp Arg Ala Ala Leu  
 85 90 95

Glu Lys Gln Glu Lys Gln Leu Glu Leu Glu Ile Lys Lys Met Ala Lys  
 100 105 110

Ile Gly Asn Lys Glu Ala Cys Lys Val Leu Ala Lys Gln Leu Val His  
 115 120 125

Leu Arg Lys Gln Lys Thr Arg Thr Phe Ala Val Ser Ser Lys Val Thr  
 130 135 140

Ser Met Ser Thr Gln Thr Lys Val Met Asn Ser Gln Met Lys Met Ala  
 145 150 155 160

Gly Ala Met Ser Thr Thr Ala Lys Thr Met Gln Ala Val Asn Lys Lys  
 165 170 175

## 4541

Met Asp Pro Gln Lys Thr Leu Gln Thr Met Gln Asn Phe Gln Lys Glu  
 180 185 190

Asn Met Lys Met Glu Met Thr Glu Glu Met Ile Asn Asp Thr Leu Asp  
 195 200 205

Asp Ile Phe Asp Gly Ser Asp Asp Glu Glu Glu Ser Gln Asp Ile Val  
 210 215 220

Asn Gln Val Leu Asp Glu Ile Gly Ile Glu Ile Ser Gly Lys Met Ala  
 225 230 235 240

Lys Ala Pro Ser Ala Ala Arg Ser Leu Pro Ser Ala Ser Thr Ser Lys  
 245 250 255

Ala Thr Ile Ser Asp Glu Glu Ile Glu Arg Gln Leu Lys Ala Leu Gly  
 260 265 270

Val Asp

<210> 5040

<211> 23

<212> PRT

<213> Homo sapiens

<400> 5040

Thr Leu Lys Ile Glu Val Pro His Asp Pro Ala Ile Pro Leu Leu Asp  
 1 5 10 15

Ile Tyr Pro Arg Asn Lys Lys  
 20

<210> 5041

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5041

Ala Arg Phe Ile Lys Leu Ile Phe Phe Ile Leu Val Val Lys Ser Ser  
 1 5 10 15

## 4542

Leu Ile Ala Phe Cys Gln Leu Asp Phe Xaa Val Cys Val Ile Phe Lys  
                   20                  25                  30

Gly Arg Met Thr Gly Gln Ile Ser Asn Lys Lys Cys Ile Glu Leu Glu  
                   35                  40                  45

Asn Ile Val Val Pro Ser Tyr Pro Trp Asp Ile Arg Ser Lys Thr Pro  
                   50                  55                  60

Ser Glu Arg Leu Lys Pro Trp Ile Val  
                   65                  70

<210> 5042

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5042

Ala Asp Val Glu Ser Pro Glu Leu Ile Ser Asn Phe Leu Pro Phe Pro  
                   1                  5                  10                  15

Phe Pro Ser Pro Ser Leu Pro Phe Pro Phe Ser Pro Leu Pro Ser Pro  
                   20                  25                  30

Xaa Phe Pro Ser Pro  
                   35

<210> 5043

<211> 87

<212> PRT

<213> Homo sapiens

<400> 5043

Glu Gly Arg Leu Arg Gln Gly Arg Val Arg Glu His Cys Arg Gly Glu  
                   1                  5                  10                  15

Glu Gly Ile His Phe Leu Val Ile Ser Phe His Ser Lys Arg Val Ser  
                   20                  25                  30

Gln Asn Arg Trp Pro Gly Thr Gly Glu Leu Gly Arg Ala Arg Arg Glu  
                   35                  40                  45

## 4543

Ile Ser Ala Cys Val Arg Lys Asp Gly Arg Ala Gly Leu Glu Pro Leu  
 50 55 60

Leu Asp Tyr Leu Gln Ser Phe Cys Ser Thr Leu Lys Val Asn Gln Cys  
 65 70 75 80

Leu Gln Thr Phe Pro Asp Thr  
 85

<210> 5044

<211> 124

<212> PRT

<213> Homo sapiens

<400> 5044

Ile Asn Thr Ile Ile Phe Ile Trp Lys Phe Tyr Arg Arg Ala Ile Ser  
 1 5 10 15

Val Tyr Val Ile Thr Pro Asp Phe Leu Lys Leu Leu Leu Val Asp Asn  
 20 25 30

Arg Gln Val Leu Ser Ser Val Pro Leu Arg Val Val Pro Gly Leu Pro  
 35 40 45

Ala Val Glu Leu Thr Gly Gly Ile Leu Gln Phe Cys Asp Pro Arg Met  
 50 55 60

Arg Pro Arg Arg Ser Val Arg Ser Ala Gly Gly Gly Ala Trp Glu Ala  
 65 70 75 80

Val Phe Val Met Asn Ser Gly Val Phe Cys Pro Leu Lys Cys Ile Phe  
 85 90 95

Val His Pro Ile Arg Leu Lys Glu Arg Lys Ser Ile Ser Asn Glu Cys  
 100 105 110

Lys Leu Phe Leu Arg Lys Lys Cys Ile Arg Leu Leu  
 115 120

<210> 5045

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (121)

## 4544

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5045

Asp Gln Gly Gly Glu Trp Lys His Gly Arg Ile Ile Leu Pro Ser Tyr  
1 5 10 15

Asp Met Glu Tyr Gln Ile Val Phe Glu Gly Val Ile Gly Lys Gly Arg  
20 25 30

Ser Gly Glu Ile Ala Ile Asp Asp Ile Arg Ile Ser Thr Asp Val Pro  
35 40 45

Leu Glu Asn Cys Met Glu Pro Ile Ser Ala Phe Ala Gly Gly Thr Leu  
50 55 60

Leu Pro Gly Thr Glu Pro Thr Val Asp Thr Val Pro Met Gln Pro Ile  
65 70 75 80

Pro Ala Tyr Trp Tyr Tyr Val Met Ala Ala Gly Gly Ala Val Leu Val  
85 90 95

Leu Val Ser Val Ala Leu Ala Leu Val Leu His Tyr His Arg Phe Arg  
100 105 110

Tyr Ala Ala Lys Lys Thr Asp His Xaa Ile Thr Tyr Lys Thr Phe His  
115 120 125

Tyr Thr Asn Gly Ala Pro Leu Ala Val Glu Xaa  
130 135

<210> 5046

<211> 201

<212> PRT

<213> Homo sapiens

<400> 5046

Ala Leu Ile Met Ser Phe Ile Phe Glu Trp Ile Tyr Asn Gly Phe Ser  
1 5 10 15

Ser Val Leu Gln Phe Leu Gly Leu Tyr Lys Lys Ser Gly Lys Leu Val  
20 25 30

Phe Leu Gly Leu Asp Asn Ala Gly Lys Thr Thr Leu Leu His Met Leu  
35 40 45



## 4545

Lys Asp Asp Arg Leu Gly Gln His Val Pro Thr Leu His Pro Thr Ser  
 50 55 60

Glu Glu Leu Thr Ile Ala Gly Met Thr Phe Thr Thr Phe Asp Leu Gly  
 65 70 75 80

Gly His Glu Gln Ala Arg Arg Val Trp Lys Asn Tyr Leu Pro Ala Ile  
 85 90 95

Asn Gly Ile Val Phe Leu Val Asp Cys Ala Asp His Ser Arg Leu Val  
 100 105 110

Glu Ser Lys Val Glu Leu Asn Ala Leu Met Thr Asp Glu Thr Ile Ser  
 115 120 125

Asn Val Pro Ile Leu Ile Leu Gly Asn Lys Ile Asp Arg Thr Asp Ala  
 130 135 140

Ile Ser Glu Glu Lys Leu Arg Glu Ile Phe Gly Leu Tyr Gly Gln Thr  
 145 150 155 160

Thr Gly Lys Gly Asn Val Thr Leu Lys Glu Leu Asn Ala Arg Pro Met  
 165 170 175

Glu Val Phe Met Cys Ser Val Leu Lys Arg Gln Gly Tyr Gly Glu Gly  
 180 185 190

Phe Arg Trp Leu Ser Gln Tyr Ile Asp  
 195 200

<210> 5047

<211> 304

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (206)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5047

Lys Glu Gly Ile Leu Phe Val Thr Tyr Pro Asp Gly Arg Pro Thr Gly  
 1 5 10 15

Asp Ala Phe Val Leu Phe Ala Cys Glu Glu Tyr Ala Gln Asn Ala Leu  
 20 25 30

Arg Lys His Lys Asp Leu Leu Gly Lys Arg Tyr Ile Glu Leu Phe Arg

## 4546

35					40					45					
Ser	Thr	Ala	Ala	Glu	Val	Gln	Gln	Val	Leu	Asn	Arg	Phe	Ser	Ser	Ala
50						55					60				
Pro	Leu	Ile	Pro	Leu	Pro	Thr	Pro	Pro	Ile	Ile	Pro	Val	Leu	Pro	Gln
65					70					75					80
Gln	Phe	Val	Pro	Pro	Thr	Asn	Val	Arg	Asp	Cys	Ile	Arg	Leu	Arg	Gly
				85					90					95	
Leu	Pro	Tyr	Ala	Ala	Thr	Ile	Glu	Asp	Ile	Leu	Asp	Phe	Leu	Gly	Glu
			100					105					110		
Phe	Ala	Thr	Asp	Ile	Arg	Thr	His	Gly	Val	His	Met	Val	Leu	Asn	His
		115					120					125			
Gln	Gly	Arg	Pro	Ser	Gly	Asp	Ala	Phe	Ile	Gln	Met	Lys	Ser	Ala	Asp
130						135					140				
Arg	Ala	Phe	Met	Ala	Ala	Gln	Lys	Cys	His	Lys	Lys	Asn	Met	Lys	Asp
145				150						155					160
Arg	Tyr	Val	Glu	Val	Phe	Gln	Cys	Ser	Ala	Glu	Glu	Met	Asn	Phe	Val
				165					170					175	
Leu	Met	Gly	Gly	Thr	Leu	Asn	Arg	Asn	Gly	Leu	Ser	Pro	Pro	Pro	Cys
			180					185					190		
Leu	Ser	Pro	Pro	Ser	Tyr	Thr	Phe	Pro	Ala	Pro	Ala	Ala	Xaa	Ile	Pro
		195					200					205			
Thr	Glu	Ala	Ala	Ile	Tyr	Gln	Pro	Ser	Val	Ile	Leu	Asn	Pro	Arg	Ala
210						215					220				
Leu	Gln	Pro	Ser	Thr	Ala	Tyr	Tyr	Pro	Ala	Gly	Thr	Gln	Leu	Phe	Met
225				230						235				240	
Asn	Tyr	Thr	Ala	Tyr	Tyr	Pro	Ser	Pro	Pro	Gly	Ser	Pro	Asn	Ser	Leu
				245					250					255	
Gly	Tyr	Phe	Pro	Thr	Ala	Ala	Asn	Leu	Ser	Gly	Val	Pro	Pro	Gln	Pro
			260					265					270		
Gly	Thr	Val	Val	Arg	Met	Gln	Gly	Leu	Ala	Tyr	Asn	Thr	Gly	Val	Lys
		275				280					285				
Glu	Ile	Leu	Asn	Phe	Phe	Gln	Gly	Tyr	Gln	Cys	Leu	Lys	Asp	Val	Trp
290						295					300				

4547

&lt;210&gt; 5048

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

Trp Cys Ile Phe Asp Tyr Met Ala Val Tyr Arg Met Cys Cys Pro Tyr  
 1 5 10 15

Thr Arg Arg Ala Ser Lys Ser Ser Arg Pro Met Tyr Gly Ala Val Thr  
 20 25 30

Ser Phe Leu His Ser Leu Ile Ile Gln Asn Glu Pro Arg Phe Ala Met  
 35 40 45

Phe Gly Pro Gly Leu Glu Glu Leu Asn Thr Ser Leu Val Leu Ser Leu  
 50 55 60

Met Ser Ser Glu Glu Leu Cys Pro Thr Ala Gly Leu Pro Gln Arg Gln  
 65 70 75 80

Ile Asp Gly Ile Gly Ser Gly Val Asn Phe Gln Leu Asn Asn Gln His  
 85 90 95

Lys Phe Asn Ile Leu Ile Leu Tyr Ser Thr Thr Arg Lys Glu Arg Asp  
 100 105 110

Arg Ala Arg Glu Glu His Thr Ser Ala Val Asn Lys Met Phe Ser Arg  
 115 120 125

His Asn Glu Gly Asp Asp Gln Gln Gly Ser Arg Tyr Ser Val Ile Pro  
 130 135 140

Gln Ile Gln Lys Val Cys Glu Val Val Asp Gly Phe Ile Tyr Val Ala  
 145 150 155 160

Asn Ala Glu Ala His Lys Arg His Glu Trp Gln Asp Glu Phe Ser His  
 165 170 175

Ile Met Ala Met Thr Asp Pro Ala Phe Gly Ser Ser Gly Arg Pro Leu  
 180 185 190

Leu Val Leu Ser Cys Ile Ser Gln Gly Asp Val Lys Arg Met Pro Cys  
 195 200 205

Phe Tyr Leu Ala His Glu Leu His Leu Asn Leu Leu Asn His Pro Trp  
 210 215 220

4548

Leu Val Gln Asp Thr Glu Ala Glu Thr Leu Thr Gly Phe Leu Asn Gly  
 225 230 235 240

Ile Glu Trp Ile Leu Glu Glu Val Glu Ser Lys Arg Ala Arg  
 245 250

&lt;210&gt; 5049

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5049

Phe Leu Ile Val His Lys Pro Leu Thr Lys Glu Ser Glu Ile Ser Pro  
 1 5 10 15

Ser Val Lys Arg Lys Gln Ala Met Lys Cys Tyr Ile Cys Arg Leu Lys  
 20 25 30

Ser Lys Leu Val Cys Phe Leu Lys Asn Leu Asn Gln Asp  
 35 40 45

&lt;210&gt; 5050

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5050

Ser Cys Val Ser Ala Val Asp Thr Asn Ile Lys Cys Leu Val His Leu  
 1 5 10 15

Lys Ser Leu Ser Leu Pro Tyr Met Gly Glu Thr Gln Ser Pro Ser Leu  
 20 25 30

Cys Trp Lys Tyr His Gln Thr Asp Cys Lys Cys Ala Ala Val Ala Asp  
 35 40 45

Ile Leu Val Trp Trp Cys Ala Ala Ile Ser Ala Leu His Leu Pro Xaa  
 50 55 60

Trp Leu Pro Tyr Ser Cys Val Pro Ile Phe Ala Ser Met Leu Gly Val  
 65 70 75 80

4549

Pro His Leu Leu His Phe Pro Ala Cys Asn Gln Glu Leu Thr  
                     85                    90

&lt;210&gt; 5051

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (198)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (200)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5051

Val Gly Pro Gly Ala Ala Trp Arg Arg Pro His Ser Gly Ile Met Ala  
   1                    5                    10                    15

Gln Val Ala Met Ser Thr Leu Pro Val Glu Asp Glu Glu Ser Ser Glu  
                     20                    25                    30

Ser Arg Met Val Val Thr Phe Leu Met Ser Ala Leu Glu Ser Met Cys  
                     35                    40                    45

Lys Glu Leu Ala Lys Ser Lys Ala Glu Val Ala Cys Ile Ala Val Tyr  
                     50                    55                    60

Glu Thr Asp Val Phe Val Val Gly Thr Glu Arg Gly Arg Ala Phe Val  
   65                    70                    75                    80

Asn Thr Arg Lys Asp Phe Gln Lys Asp Phe Val Lys Tyr Cys Val Glu  
                     85                    90                    95

Glu Glu Glu Lys Ala Ala Glu Met His Lys Met Lys Ser Thr Thr Gln  
                     100                    105                    110

Ala Asn Arg Met Ser Val Asp Ala Val Glu Ile Glu Thr Leu Arg Lys  
                     115                    120                    125

Thr Val Glu Asp Tyr Phe Cys Phe Cys Tyr Gly Lys Ala Leu Gly Lys  
                     130                    135                    140

Ser Thr Val Val Pro Val Pro Tyr Glu Lys Met Leu Arg Asp Gln Ser  
   145                    150                    155                    160

4550

Ala Val Val Val Gln Gly Leu Pro Glu Gly Val Ala Phe Lys His Pro  
                   165                  170                  175

Glu Asn Tyr Asp Leu Ala Thr Leu Lys Trp Ile Leu Glu Asn Lys Ala  
                   180                  185                  190

Gly Ile Ser Phe Ile Xaa Lys Xaa  
                   195                  200

<210> 5052  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (112)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (143)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (155)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (160)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5052  
 Arg Glu Ile Glu Arg Lys Arg Gln Arg Glu Glu Glu Arg Arg Lys Trp  
   1                  5                  10                  15

Lys Glu Glu Glu Lys Arg Lys Arg Lys Asp Ile Glu Lys Leu Lys Lys  
                   20                  25                  30

Ile Asp Arg Ile Pro Glu Arg Asp Lys Leu Lys Asp Glu Pro Lys Ile  
                   35                  40                  45

Lys Leu Leu Lys Lys Pro Glu Lys Gly Asp Glu Lys Glu Leu Asp Lys  
                   50                  55                  60

Arg Glu Lys Ala Lys Lys Leu Asp Lys Glu Asn Leu Ser Asp Glu Arg

## 4551

65		70		75		80
Ala Ser Gly Gln Ser Cys Thr Leu Pro Lys Arg Ser Asp Ser Glu Leu						
		85		90		95
Lys Asp Glu Lys Pro Lys Arg Pro Glu Asp Glu Ser Gly Arg Asp Xaa						
	100		105		110	
Arg Glu Arg Glu Arg Glu Tyr Glu Arg Asp Gln Glu Arg Ile Leu Arg						
	115		120		125	
Glu Arg Glu Arg Leu Lys Arg Gln Glu Glu Glu Arg Arg Arg Xaa Arg						
	130		135		140	
Ser Ala Met Arg Lys Arg Arg Leu Leu Arg Xaa Lys Lys Lys Lys Xaa						
145		150		155		160
Lys Lys Arg Lys Thr His Phe Gly Ile Lys Glu Arg Arg Leu Lys Val						
	165		170		175	
Gln Asn Gln						

&lt;210&gt; 5053

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5053

Gln Asp Gly Leu Asn Ser Leu Val Leu Asp Leu Asp Phe Pro Ala Leu														
1			5				10						15	
Arg Lys Asn Lys Asn Ile Asp Asn Phe Leu Asn Arg Tyr Glu Lys Ile														
		20				25					30			
Val Lys Lys Ile Arg Gly Leu Gln Met Lys Ala Glu Asp Tyr Asp Val														
	35				40				45					
Val Lys Val Ile Gly Arg Gly Xaa Phe Gly Glu Val Gln Leu Val Val														
	50				55				60					
Thr Arg His Arg Arg Arg Phe Met Leu														
65					70									

4552

&lt;210&gt; 5054

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5054

Pro Cys Ala Ile Ile Phe Phe His His Phe Ser Gly Xaa Leu Glu Gly  
1 5 10 15

Gly Gly Asp Pro Gly Asp Leu Ser Thr Leu Phe Ser Gln Lys Ala Gly  
20 25 30

Trp Phe Phe Ser Leu Phe Ser Cys Asp Ser Tyr Leu Glu Ser Gly Leu  
35 40 45

Asn Val Asn Ile Leu Val Leu Val Val Gln Leu Arg  
50 55 60

&lt;210&gt; 5055

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



4553

<220>  
<221> SITE  
<222> (60)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (61)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (68)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5055  
Gly Arg Val Glu Lys Ser Leu Met Thr Leu Lys Ile Ser Ala Trp Leu  
1 5 10 15  
Leu Thr Lys Ile Gly Asn Xaa Xaa Xaa Gly Xaa Arg Phe Gly Lys Arg  
20 25 30  
Arg Glu Arg Ile Met Lys Phe Asp Phe Tyr Ile Glu Met Lys Gly Pro  
35 40 45  
Phe Gln Ile Trp Lys Ser Phe Gly Leu Asn Asn Xaa Xaa Ile Phe Asp  
50 55 60  
Leu Glu Asn Xaa Gly Xaa Lys Pro  
65 70

<210> 5056  
<211> 49  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (47)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5056  
Leu Lys Cys Phe Glu Thr Val Val Asp Gly Tyr Glu Glu Leu Leu Phe

4554

1                      5                      10                      15  
 Leu Leu Pro Cys Arg Thr Pro Glu Ser Lys Met Ile His Gln Gln Leu  
                     20                      25                      30  
 Tyr Trp Ser His Pro Arg Lys Val Ser Gln Gly Ser Cys Tyr Xaa Val  
                     35                      40                      45

Cys

&lt;210&gt; 5057

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5057

Arg Ile Gln Glu Tyr Phe Leu Leu Gly Trp Ala Leu Asn Lys Ala Lys  
 1                      5                      10                      15

Asn Cys Arg Asn Gln Ser Arg Lys Ser Pro Ala His Leu Trp Pro Leu  
 20                      25                      30

Pro Ser Ser Arg Pro Pro Pro Cys Arg Lys Asn Leu Ala Phe Gly Leu  
 35                      40                      45

Ser Leu Ser His Arg Gly His Leu Leu Phe Pro Ser Asp Ile Gln Pro  
 50                      55                      60

Tyr Arg Arg Ser Leu Asp Ser Asp Pro Ser Val Gln Ala Gly Trp Lys  
 65                      70                      75                      80

Gly Pro Ser Thr Leu Pro Gly Arg Ser Glu Thr Asn Cys Phe Arg Glu  
                     85                      90                      95

Ser Asp Gly Leu Pro Lys Thr Cys  
 100

&lt;210&gt; 5058

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4555

&lt;400&gt; 5058

Pro Thr Arg Pro Arg Thr Arg Gly Leu Lys Met Pro Leu Thr Phe Ile  
 1 5 10 15  
 Leu Leu Pro Ser Gly Lys Gly Asn Leu Val Phe Ser Ile Thr Ser Thr  
 20 25 30  
 Lys Ile Leu Leu Xaa Ser Thr His Tyr Pro Ile Pro Lys Pro Phe Ser  
 35 40 45  
 His Phe Lys Thr Phe Val Thr Glu Val Pro Asn Pro Ser Gln Phe His  
 50 55 60  
 Asn Leu His  
 65

&lt;210&gt; 5059

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5059

Thr Lys Leu His Phe Gln Gly Gln Gly Leu Gly Asn Xaa Leu Ile Val  
 1 5 10 15  
 Lys Ser Cys Asn Thr Ser Val Gln Val Asn Ile Ser Gly Pro Cys Phe  
 20 25 30  
 Pro Ser Gln Cys Met His Glu Leu Phe Phe Met His His Trp Gly Ala  
 35 40 45  
 Gln Ser Trp Xaa Asn Leu Pro Val Gly Ile Leu Gly Xaa Thr Trp Ala  
 50 55 60

4556

Cys Leu  
65

<210> 5060  
<211> 47  
<212> PRT  
<213> Homo sapiens

<400> 5060  
Lys Cys Lys Cys Ala Gly Arg Lys Gly Thr Asp Asp Ser Val Thr Leu  
1 5 10 15  
Gln Leu Gln Lys Leu Arg Val Gly Asp Tyr Leu Asp Ile Ala Ile Thr  
20 25 30  
Pro Leu Asn Gln Val Pro Pro Pro Ser Gly His Met Arg Ser Tyr  
35 40 45

<210> 5061  
<211> 113  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (33)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5061  
Phe Gly Thr Ser Gly Thr Ser Cys Cys Leu Gly Trp Thr Trp Phe Cys  
1 5 10 15  
Leu Leu Arg Pro Leu Phe Ala Leu Ser Phe His Phe Leu Gln Arg Ala  
20 25 30  
Xaa Arg Met Ala His Lys Gln Ile Tyr Tyr Ser Asp Lys Tyr Phe Asp  
35 40 45  
Glu His Tyr Glu Tyr Arg His Val Met Leu Pro Arg Glu Leu Ser Lys  
50 55 60  
Gln Val Pro Lys Thr His Leu Met Ser Glu Glu Glu Trp Arg Arg Leu  
65 70 75 80  
Gly Val Gln Gln Ser Leu Gly Trp Val His Tyr Met Ile His Glu Pro  
85 90 95

4557

Glu Pro His Ile Leu Leu Phe Arg Arg Pro Leu Pro Lys Asp Gln Gln  
 100 105 110

Lys

&lt;210&gt; 5062

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5062

Ser Gly Ser Ala Phe Leu Arg Cys Pro Pro Pro Pro Val Arg Arg Ser  
 1 5 10 15

Glu Lys Pro Asn Trp Asp Tyr His Ala Glu Ile Gln Ala Phe Gly His  
 20 25 30

Arg Leu Gln Glu Asn Phe Ser Leu Asp Leu Leu Lys Thr Ala Phe Val  
 35 40 45

Asn Ser Cys Tyr Ile Lys Ser Glu Glu Ala Lys Arg Gln Gln Leu Gly  
 50 55 60

Ile Glu Lys Glu Ala Val Leu Leu Asn Leu Lys Ser Asn Gln Glu Leu  
 65 70 75 80

Ser Glu Gln Gly Thr Ser Phe Ser Gln Thr Cys Leu Thr Gln Phe Leu  
 85 90 95

Glu Asp Glu Tyr Pro Asp Met Pro Thr Glu Gly Ile Lys Asn Leu Val  
 100 105 110

Asp Phe Leu Thr Gly Glu Glu Val Val Cys His Val Ala Arg Asn Leu  
 115 120 125

Ala Val Glu Gln Leu Thr Leu Ser Glu Glu Phe Pro Val Pro Pro Ala  
 130 135 140

Val Leu Gln Gln Thr Phe Phe Ala Val Ile Gly Ala Leu Leu Gln Ser  
 145 150 155 160

Ser Gly Pro Glu Arg Thr Ala Leu Phe Ile Arg Asp Phe Leu Ile Thr  
 165 170 175

Gln Met Thr Gly Lys Glu Leu Phe Glu Met Trp Lys Ile Ile Asn Pro  
 180 185 190

## 4558

Met Gly Leu Leu Val Glu Glu Leu Lys Lys Arg Asn Val Ser Ala Pro  
 195 200 205

Glu Ser Arg Leu Thr Arg Gln Ser Gly Gly Thr Thr Ala Leu Pro Leu  
 210 215 220

Tyr Phe Val Gly Leu Tyr Cys Asp Lys Lys Leu Ile Ala Glu Gly Pro  
 225 230 235 240

Gly Glu Thr Val Leu Val Ala Glu Glu Glu Ala Ala Arg Val Ala Leu  
 245 250 255

Arg Lys Leu Tyr Gly Phe Thr Glu Asn Arg Arg Pro Trp Asn Tyr Ser  
 260 265 270

Lys Pro Lys Glu Thr Leu Arg Ala Glu Lys Ser Ile Thr Ala Ser  
 275 280 285

&lt;210&gt; 5063

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5063

Ile Leu Thr Glu Phe Leu Glu Met Ile Val Asn Cys Leu Gln Ile Ile  
 1 5 10 15

Glu Lys Cys Ile Tyr Leu Cys Val Cys Val Cys Gln Lys Cys Asn Cys  
 20 25 30

Phe Ile Ile Phe Phe Pro Tyr Leu Tyr Ile Leu Phe Asn Thr Trp Phe  
 35 40 45

Ile Ser Thr Val His Cys Phe Leu Cys Pro Lys Leu Thr  
 50 55 60

&lt;210&gt; 5064

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

4559

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5064

Glu Asp Pro Phe Thr Ile Leu Thr Lys Glu Ile Phe Phe Phe Thr Val  
 1 5 10 15

Glu Leu Val Cys Glu Asn Lys Glu Leu Cys Ser Ser Pro Arg Trp Arg  
 20 25 30

Asn Ala Ile Gln Lys Ser Asn Phe Ser Lys Val Thr Ser Phe Phe Met  
 35 40 45

Ser Cys His His Phe Lys Gly Leu Ala Pro Leu Pro His Val Tyr Thr  
 50 55 60

Gln Gly Asn Cys Arg Pro Ile Ser Cys Leu Gly Leu Thr Leu Met Pro  
 65 70 75 80

Phe Ala Ser Ser Phe Pro Glu Val Lys Val Pro Val Met Tyr Ser His  
 85 90 95

Arg Asn Ile Phe Gln Leu Phe Met Ser Phe Thr Thr Lys Lys Lys Xaa  
 100 105 110

Gln Ser Gly Met Gly Val Gln Leu Leu Xaa Xaa Phe Leu Val Arg Ile  
 115 120 125

Phe Tyr  
 130

&lt;210&gt; 5065

&lt;211&gt; 342

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5065

Ile Arg His Glu Gly Leu Gly Arg Met Lys Pro Asn Thr Leu Val Leu

## 4560

1	5	10	15
Gly Phe Xaa Lys Asp Trp Leu Gln Ala Asp Met Arg Asp Val Asp Met	20	25	30
Tyr Ile Asn Leu Phe His Asp Ala Phe Asp Ile Gln Tyr Gly Val Val	35	40	45
Val Ile Arg Leu Lys Glu Gly Leu Asp Ile Ser His Leu Gln Gly Gln	50	55	60
Glu Glu Leu Leu Ser Ser Gln Glu Lys Ser Pro Gly Thr Lys Asp Val	65	70	75
Val Val Ser Val Glu Tyr Ser Lys Lys Ser Asp Leu Asp Thr Ser Lys	85	90	95
Pro Leu Ser Glu Lys Pro Ile Thr His Lys Val Glu Glu Glu Asp Gly	100	105	110
Lys Thr Ala Thr Gln Pro Leu Leu Lys Lys Glu Ser Lys Gly Pro Ile	115	120	125
Val Pro Leu Asn Val Ala Asp Gln Lys Leu Leu Glu Ala Ser Thr Gln	130	135	140
Phe Gln Lys Lys Gln Gly Lys Asn Thr Ile Asp Val Trp Trp Leu Phe	145	150	155
Asp Asp Gly Gly Leu Thr Leu Leu Ile Pro Tyr Leu Leu Thr Thr Lys	165	170	175
Lys Lys Trp Lys Asp Cys Lys Ile Arg Val Phe Ile Gly Gly Lys Ile	180	185	190
Asn Arg Ile Asp His Asp Arg Arg Ala Met Ala Thr Leu Leu Ser Lys	195	200	205
Phe Arg Ile Asp Phe Ser Asp Ile Met Val Leu Gly Asp Ile Asn Thr	210	215	220
Lys Pro Lys Lys Glu Asn Ile Ile Ala Phe Glu Glu Ile Ile Glu Pro	225	230	235
Tyr Arg Leu His Glu Asp Asp Lys Glu Gln Asp Ile Ala Asp Lys Met	245	250	255
Lys Glu Asp Glu Pro Trp Arg Ile Thr Asp Asn Glu Leu Glu Leu Tyr	260	265	270
Lys Thr Lys Thr Tyr Arg Gln Ile Arg Leu Asn Glu Leu Leu Lys Glu			



## 4561

275                      280                      285  
 His Ser Ser Thr Ala Asn Ile Ile Val Met Ser Leu Pro Val Ala Arg  
 290                      295                      300  
 Lys Gly Ala Val Ser Ser Ala Leu Tyr Met Ala Trp Leu Glu Ala Leu  
 305                      310                      315                      320  
 Ser Lys Asp Leu Pro Pro Ile Leu Leu Val Arg Gly Asn His Gln Ser  
 325                      330                      335  
 Val Leu Thr Phe Tyr Ser  
 340

&lt;210&gt; 5066

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

Gln His Arg Asp Lys Met Gln Gln Ser Lys Asn Gln Val Val Ser Ser  
 1                      5                      10                      15  
 Thr Asn Gly Glu Leu Asn Thr Asp Asp Pro Thr Ala Gly Arg Ser Asn  
 20                      25                      30  
 Ala Pro Ile Thr Ala Pro Thr Glu Val Glu Val Met Asp Glu Thr Lys  
 35                      40                      45  
 Cys Cys Cys Phe Phe Lys Arg Arg Lys Arg Lys Thr Ile Gln Arg His  
 50                      55                      60  
 Lys  
 65

&lt;210&gt; 5067

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4562

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5067

Ile Arg His Glu Glu Leu Asp Lys Leu Leu Ser Ser Phe Lys Ser Leu  
 1 5 10 15

Leu Glu Glu Lys Glu Gln Ala Glu Ile Gln Ile Lys Glu Glu Ser Lys  
 20 25 30

Thr Ala Val Glu Met Leu Gln Asn Gln Leu Lys Glu Leu Asn Glu Ala  
 35 40 45

Val Ala Ala Xaa Cys Gly Asp Gln Glu Ile Met Lys Ala Thr Xaa Xaa  
 50 55 60

Ser Leu Asp Pro Pro Ile Glu Glu Arg Ala Ser Ser Glu Lys  
 65 70 75

&lt;210&gt; 5068

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5068

Glu Cys Arg Leu Glu Gly Ser Met Glu Val His Gly Lys Pro Lys Ala  
 1 5 10 15

Ser Pro Ser Cys Ser Ser Pro Thr Arg Asp Ser Ser Gly Val Pro Val  
 20 25 30

Ser Lys Glu Leu Leu Thr Ala Gly Ser Asp Gly Arg Gly Gly Ile Trp  
 35 40 45

Asp Arg Leu Leu Ile Asn Ser Gln Pro Lys Ser Arg Lys Thr Ser Thr  
 50 55 60

Leu Gln Thr Val Arg Ile Glu Arg Ser Pro Leu Leu Asp Gln Val Gln  
 65 70 75 80

Thr Phe Leu Pro Gln Met Ala Arg Ala Asn Glu Lys Leu Arg Lys Glu  
 85 90 95

Met Ala Ala Ala Pro Pro Gly Arg Phe Asn Ile Glu Asn Ile Asp Gly

## 4563

100	105	110
Pro His Ser Lys Val Ile Gln Met Asp Val Ala Leu Phe Glu Met Asn		
115	120	125
Gln Ser Asp Ser Lys Glu Val Asp Ser Ser Glu Glu Ser Ser Gln Asp		
130	135	140
Ser Ser Glu Asn Ser Ser Glu Ser Glu Asp Glu Asp Asp Ser Ile Pro		
145	150	155
Ser Glu Val Thr Ile Asp Asn Ile Lys Leu Pro Asn Ser Glu Gly Gly		
165	170	175
Lys Gly Lys Ile Glu Val Leu Asp Ser Pro Ala Ser Lys Lys Lys Lys		
180	185	190

&lt;210&gt; 5069

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5069

Leu Thr Ser Val Asn Ser Ser Pro Thr Arg Leu Met Thr Thr Phe Ile
1 5 10 15

Leu His Glu Xaa Ile Val Phe Val Ser Thr Val Phe Tyr Tyr Phe Arg
20 25 30

Ala Ser Leu Arg His Thr Ile
35

&lt;210&gt; 5070

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 4564

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (125)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5070

Gly	Ser	Gly	Ala	Glu	Ala	Xaa	Asp	Lys	Lys	Pro	Arg	Asp	Leu	Phe	Gly
1				5					10					15	

Pro	Pro	Gly	Pro	Pro	Xaa	Ala	Glu	Val	Thr	Ala	Glu	Thr	Leu	Leu	His
			20					25					30		

Glu	Phe	Gln	Glu	Leu	Leu	Lys	Glu	Ala	Thr	Glu	Arg	Arg	Phe	Ser	Gly
		35					40					45			

Leu	Leu	Asp	Pro	Leu	Leu	Pro	Gln	Gly	Ala	Gly	Leu	Arg	Leu	Val	Gly
		50				55					60				

Glu	Ala	Phe	His	Cys	Arg	Leu	Gln	Gly	Pro	Arg	Arg	Val	Asp	Lys	Arg
65					70					75					80

Thr	Leu	Val	Glu	Leu	His	Gly	Phe	Gln	Ala	Pro	Ala	Ala	Gln	Gly	Ala
				85					90					95	

Phe	Leu	Arg	Gly	Ser	Gly	Leu	Ser	Leu	Ala	Ser	Gly	Arg	Phe	Thr	Ala
			100					105						110	

Pro	Val	Ser	Gly	Ile	Phe	Gln	Phe	Xaa	Ala	Xaa	Leu	Xaa	Val	Gly	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4565

115                                      120                                      125  
 Gly Trp Gly Ser Ala Val Cys Cys Asp Gly Ala Gly Ala Xaa Leu Ser  
       130                                      135                                      140  
  
 Gly Gly  
 145  
  
 <210> 5071  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 5071  
 Glu Arg Ser His Leu Gln Pro Gly Ala Val Gly Ile Thr Glu Ser Pro  
       1                                      5                                      10                                      15  
  
 Ile Leu Gly Leu Gly Ser Ala Met Thr Thr Glu Ile Gly Trp Trp Lys  
                                     20                                      25                                      30  
  
 Leu Thr Phe Leu Arg Lys Lys Lys Ser Thr Pro Lys Val Leu Tyr Glu  
                                     35                                      40                                      45  
  
 Ile Pro Asp Thr Tyr Ala Gln Thr Glu Gly Asp Ala Glu Pro Pro Arg  
                                     50                                      55                                      60  
  
 Pro Asp Ala Gly Gly Pro Asn Ser Asp Phe Asn Thr Arg Leu Glu Lys  
       65                                      70                                      75                                      80  
  
 Ile Val Asp Lys Ser Thr Lys Gly Lys His Val Lys Val Ser Asn Ser  
                                     85                                      90                                      95  
  
 Gly Arg Phe Lys Glu Lys Lys Lys Val Arg Ala Thr Leu Ala Glu Asn  
                                     100                                      105                                      110  
  
 Pro Asn Leu Phe Asp Asp His Glu Glu Gly Arg Ser Ser Lys  
                                     115                                      120                                      125

<210> 5072  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (54)  
 <223> Xaa equals any of the naturally occurring L-amino acids

4566

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (190)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5072

Tyr Cys Ser Leu Lys Thr Pro Leu Ser Glu Asn Asp Met Pro Ser Gln  
 1 5 10 15

Cys Asn Ser Glu Leu Val Arg Gly Pro Leu Ala Ala Pro Gly Gly Gly  
 20 25 30

Glu Arg Tyr Ser Arg Ser Ala Gly Met Tyr Met Gln Ser Gly Ser Asp  
 35 40 45

Phe Asn Cys Gly Val Xaa Arg Gly Cys Gly Leu Ala Pro Ser Leu Ser  
 50 55 60

Lys Arg Asp Glu Gly Ser Ser Pro Ser Leu Ala Leu Asn Thr Tyr Pro  
 65 70 75 80

Ser Tyr Leu Ser Gln Leu Asp Ser Trp Gly Asp Pro Lys Ala Ala Tyr  
 85 90 95

Arg Leu Glu Gln Pro Val Gly Arg Pro Leu Ser Ser Cys Ser Tyr Pro  
 100 105 110

Pro Ser Val Lys Glu Glu Asn Val Cys Cys Met Tyr Ser Ala Glu Lys  
 115 120 125

Arg Ala Lys Ser Gly Pro Glu Ala Ala Leu Tyr Ser His Pro Leu Pro  
 130 135 140

Glu Ser Cys Leu Gly Glu His Glu Val Pro Val Pro Ser Tyr Tyr Arg  
 145 150 155 160

Ala Ser Arg Ala Thr Pro Arg Trp Thr Arg Arg Pro Thr Val Leu Gly  
 165 170 175

Pro Thr Thr Ser Lys Pro Leu Ser Ser Ser Gly Pro Val Xaa Thr Arg  
 180 185 190

Ala Pro Asn Ile Trp Asn Arg Leu Ser Trp Gly Ala Lys  
 195 200 205

&lt;210&gt; 5073

&lt;211&gt; 84

&lt;212&gt; PRT

4567

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5073

Val	Ser	Ser	Asn	Pro	Asp	Lys	Ser	Arg	Cys	Leu	Gly	Val	Arg	His	Ile
1				5					10					15	

Gln	Asp	Ile	Gly	Leu	Trp	Leu	Gln	Asn	Arg	Asn	Leu	Gly	Gly	Leu	Gln
			20					25					30		

Leu	Val	Leu	Gly	Arg	Leu	Leu	Leu	Leu	Arg	Leu	Leu	Leu	Ile	Ile	Leu
		35					40					45			

Leu	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Asn	Arg	Gln	Xaa	Asn	Gln	Xaa
		50					55				60				

Val	His	Xaa	Val	His	His	Gln	Ser	Pro	Gly	Pro	Cys	Gly	Xaa	Glu	Val
	65				70					75				80	

Leu Xaa Thr Asn

&lt;210&gt; 5074

&lt;211&gt; 61

&lt;212&gt; PRT

4568

&lt;213&gt; Homo sapiens

&lt;400&gt; 5074

Gly Arg Ala Lys Glu Arg Lys Val Asn Lys Lys Lys Gln Gln Gln Gln  
1 5 10 15  
Gln Pro Pro Gln Pro Pro Met Ala His Asp Ile Thr Ala Thr Pro Ala  
20 25 30  
Gly Pro Ser Leu Gly Gly Leu Cys Pro Ser Asn Thr Ser Leu Leu Ala  
35 40 45  
Thr Ser Ser Pro Met Pro Val Lys Glu Glu Phe Leu Pro  
50 55 60

&lt;210&gt; 5075

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5075

Phe His His Val Ala Gln Ala Gly Leu Asp Leu Pro Thr Ser Ser Asp  
1 5 10 15  
Leu Pro Ala Pro Thr Ser Gln Ser Ala Gly Ile Thr Gly Leu Ser His  
20 25 30  
Arg Ala Arg Pro Val Leu Phe Val Phe Val Glu Arg Trp Gly Phe Ala  
35 40 45  
Met Leu Pro Arg Leu Ile Ser Asn Ser  
50 55

&lt;210&gt; 5076

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



4569

&lt;400&gt; 5076

Glu Val Leu Pro Gly Pro Gly Ser Thr Arg Val Trp Pro Gly Pro Ser  
 1 5 10 15

Val Ser Pro Arg Pro Gln Gly Gly Ala Leu Ser Thr Gln Lys Gly Pro  
 20 25 30

Lys Ala Gly His Gly Gly Ala Glu Glu Phe Gly Arg Cys Lys Gln Pro  
 35 40 45

His Ala Arg Gly Gly Gly Asp Cys Phe Ser Xaa Arg Pro His Ala Ser  
 50 55 60

Thr Phe His Xaa Ala Cys Pro Leu Leu Met Cys Ser Ser Gln Cys Leu  
 65 70 75 80

Cys Glu Pro Thr Ser Ala Gln Ser Tyr Pro Ser Ser Ala Cys Gly Asp  
 85 90 95

Pro Ala Pro Ala Ala Leu Leu Leu Pro Arg Pro Gln Thr Ala Trp Trp  
 100 105 110

Arg Val Leu His Leu Gly Gln Ala Gly Val His Pro Ala Lys Asp Lys  
 115 120 125

Ala Ala Ser Thr Cys Pro Arg Ile Gln Met Val His Trp Pro Arg Glu  
 130 135 140

Glu Ser Asp Gln Lys Trp Ser Pro Leu Cys Gly Glu Ala Pro Thr Pro  
 145 150 155 160

Pro Arg Glu Thr Val Pro Arg Cys Gly Ser Pro Pro Ser Leu Val Gly  
 165 170 175

His Ser Trp Pro Gly Pro Pro Ile Leu Arg Ser Phe Pro Gly Cys Gly  
 180 185 190

Phe Asp Leu Arg Ser Gly Ser Gly Leu Ala Ser Gly Val Trp Pro Gly  
 195 200 205

Pro Ala Cys Cys Ser Leu Leu Gly Gly Pro  
 210 215

&lt;210&gt; 5077

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4570

&lt;400&gt; 5077

Gly Ser Ser Thr Ile Lys Ala Tyr Leu Ile Asn Asn Tyr Phe Cys Lys  
1 5 10 15

Gln Val Gly Leu Thr Tyr Ser Ser Ser Phe Cys Leu Asp Met Asn Leu  
20 25 30

Arg Ser Ser Cys Leu Lys Thr Phe Thr Leu Leu Phe Ser Asp Thr Phe  
35 40 45

Pro Ser Tyr Phe Phe Phe Phe Phe Gly Cys Cys  
50 55

&lt;210&gt; 5078

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

## 4571

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5078

Phe Ile Leu Glu Leu Gln Met Gln Ser Ile Xaa Glu Lys Lys Met Lys  
 1 5 10 15

Xaa Xaa Arg Asn Ile Ala Xaa His Xaa Xaa Asn Xaa Pro Ser Leu Ile  
 20 25 30

Thr Phe Leu Cys Lys Asn Cys Ser Val Leu Ala Cys Ser Gly Glu Asp  
 35 40 45

Ile His Val Ile Glu Lys Met His His Val Asn Met Thr Pro Glu Phe  
 50 55 60

Lys Glu Leu Tyr Ile Val Arg Glu Asn Lys Xaa Leu Gln Lys Lys Cys  
 65 70 75 80

Ala Asp Tyr Gln Ile Asn Gly Glu Ile Ile Cys Lys Cys Gly Gln Ala  
 85 90 95

Trp Gly Thr Met Met Val His Lys Gly Leu Asp Leu Pro Cys Leu Lys  
 100 105 110

Ile Arg Asn Phe Val Val Val Phe Lys Asn Asn Ser Thr Lys Lys Gln  
 115 120 125

Tyr Lys Lys Trp Val Glu Leu Pro Ile Thr Phe Pro Asn Leu Asp Tyr  
 130 135 140

Ser Glu Cys Cys Leu Phe Ser Asp Glu Asp  
 145 150

&lt;210&gt; 5079

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4572

&lt;400&gt; 5079

Xaa	Ile	Glu	Ile	Asn	Pro	His	Val	Lys	Gly	Thr	Lys	Ala	Gly	Ala	Pro	1	5	10	15
Pro	Arg	Cys	Gly	Arg	Ser	Arg	Thr	Ser	Gly	Ser	Pro	Gly	Leu	Gln	Glu	20	25	30	
Phe	Gly	Thr	Ser	Ser	Ser	Thr	Pro	Ala	Arg	Pro	Ser	Ser	His	His	Ser	35	40	45	
Ala	Cys	Phe	Leu	Gly	Pro	Glu	Ile	Met	Pro	Leu	Gly	Leu	Leu	Trp	Leu	50	55	60	
Gly	Leu	Ala	Leu	Leu	Gly	Ala	Leu	His	Ala	Gln	Ala	Gln	Asp	Ser	Thr	65	70	75	80
Ser	Asp	Leu	Ile	Pro	Ala	Pro	Pro	Leu	Ser	Lys	Val	Pro	Leu	Gln	Gln	85	90	95	
Asn	Phe	Gln	Asp	Asn	Gln	Phe	Gln	Gly	Lys	Trp	Tyr	Val	Val	Gly	Leu	100	105	110	
Ala	Gly	Asn	Ala	Ile	Leu	Arg	Glu	Asp	Lys	Asp	Pro	Gln	Lys	Met	Tyr	115	120	125	
Ala	Thr	Ile	Tyr	Glu	Leu	Lys	Glu	Asp	Lys	Ser	Tyr	Asn	Val	Thr	Ser	130	135	140	
Val	Leu	Phe	Arg	Lys	Lys	Lys	Cys	Asp	Tyr	Trp	Ile	Arg	Thr	Phe	Val	145	150	155	160
Pro	Gly	Cys	Gln	Pro	Gly	Glu	Phe	Thr	Leu	Gly	Asn	Ile	Lys	Ser	Tyr	165	170	175	
Pro	Gly	Leu	Thr	Ser	Tyr	Leu	Val	Arg	Val	Val	Ser	Thr	Asn	Tyr	Asn	180	185	190	
Gln	His	Ala	Met	Val	Phe	Phe	Lys	Lys	Val	Ser	Gln	Asn	Arg	Glu	Tyr	195	200	205	
Phe	Lys	Ile	Thr	Leu	Tyr	Gly	Arg	Thr	Lys	Glu	Leu	Thr	Ser	Glu	Leu	210	215	220	
Lys	Glu	Asn	Phe	Ile	Arg	Phe	Ser	Lys	Ser	Leu	Gly	Leu	Pro	Glu	Asn	225	230	235	240
His	Ile	Val	Phe	Pro	Val	Pro	Ile	Asp	Gln	Cys	Ile	Asp	Gly	245	250				

4573

&lt;210&gt; 5080

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5080

Gln Ala Ala Asp Lys Tyr Val Asp Asp Met Gly Gln Leu Arg Ala Pro  
 1 5 10 15

Phe Ala Cys His Leu Pro Pro Leu Leu Trp Met Val Ser Pro Leu Ala  
 20 25 30

Arg Leu Pro Gly Thr Asp His Val Ala Ile Lys Ala Asn Val Asn Lys  
 35 40 45

Tyr His Glu Thr Val Val Cys Ile Val Phe  
 50 55

&lt;210&gt; 5081

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5081

Ser Leu Ala Phe Gln Gly Ala Ser Ile Ala Leu His His Asp Leu Ala  
 1 5 10 15

Leu Val Leu Leu Arg Asp Leu Pro Thr Ala Gly Ser Val Pro Ser Ser  
 20 25 30

Val Ile Val Leu His Ser Asp Thr Ile Ile Ala Gly Leu Asn Ile Ala  
 35 40 45

Ile Asn Met Ser Val Pro Gln Ala Glu Arg Gly Phe Leu Ile Leu Arg  
 50 55 60

Glu Gln Lys Val Phe Trp Leu Lys Arg Leu Lys Thr  
 65 70 75

&lt;210&gt; 5082

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5082

Lys Tyr Leu Arg Ala Ile Ile Val Gly His Leu Arg Ser Ser Val Asn

4574

1	5	10	15
Ser Glu Leu Ala Asn Leu Ser Leu Cys Val Ser Thr Leu Ile Phe Phe			
20	25	30	
Phe Ser Trp Val Ser Glu Ala Ser Lys Phe Phe Gln Lys Trp Ser Ile			
35	40	45	
Thr Lys Leu Ser Glu Thr Gln Tyr Leu Met Tyr Cys Thr Arg Leu Pro			
50	55	60	
Asn Ser			
65			

&lt;210&gt; 5083

&lt;211&gt; 361

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (344)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (350)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (356)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (359)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4575

&lt;400&gt; 5083

Xaa	Leu	His	Arg	Gly	Asp	Asp	Arg	Ser	Arg	Thr	Ser	Gly	Ser	Pro	Gly	1	5	10	15
Leu	Gln	Glu	Phe	Gly	Arg	Gly	Xaa	Ala	Gly	Val	Gly	Gly	Arg	Pro	Arg	20	25	30	
Arg	Arg	Arg	Arg	Lys	Gly	Ala	Ala	Ser	Arg	Ala	Arg	Leu	Pro	Phe	Ser	35	40	45	
Leu	Ser	Ile	Met	Asp	Pro	Ser	Leu	Leu	Arg	Glu	Arg	Glu	Leu	Phe	Lys	50	55	60	
Lys	Arg	Ala	Leu	Ser	Thr	Pro	Val	Val	Glu	Lys	Arg	Ser	Ala	Ser	Ser	65	70	75	80
Glu	Ser	Ser	Ser	Ser	Ser	Ser	Lys	Lys	Lys	Lys	Thr	Lys	Val	Glu	His	85	90	95	
Gly	Gly	Ser	Ser	Gly	Ser	Lys	Gln	Asn	Ser	Asp	His	Ser	Asn	Gly	Ser	100	105	110	
Phe	Asn	Leu	Lys	Ala	Leu	Ser	Gly	Ser	Ser	Gly	Tyr	Lys	Phe	Gly	Val	115	120	125	
Leu	Ala	Lys	Ile	Val	Asn	Tyr	Met	Lys	Thr	Arg	His	Gln	Arg	Gly	Asp	130	135	140	
Thr	His	Pro	Leu	Thr	Leu	Asp	Glu	Ile	Leu	Asp	Glu	Thr	Gln	His	Leu	145	150	155	160
Asp	Ile	Gly	Leu	Lys	Gln	Lys	Gln	Trp	Leu	Met	Thr	Glu	Ala	Leu	Val	165	170	175	
Asn	Asn	Pro	Lys	Ile	Glu	Val	Ile	Asp	Gly	Lys	Tyr	Ala	Phe	Lys	Pro	180	185	190	
Lys	Tyr	Asn	Val	Arg	Asp	Lys	Lys	Ala	Leu	Leu	Arg	Leu	Leu	Asp	Gln	195	200	205	
His	Asp	Gln	Arg	Gly	Leu	Gly	Gly	Ile	Leu	Leu	Glu	Asp	Ile	Glu	Glu	210	215	220	
Ala	Leu	Pro	Asn	Ser	Gln	Lys	Ala	Val	Lys	Ala	Leu	Gly	Asp	Gln	Ile	225	230	235	240
Leu	Phe	Val	Asn	Arg	Pro	Asp	Lys	Lys	Lys	Ile	Leu	Phe	Phe	Asn	Asp	245	250	255	
Lys	Ser	Cys	Gln	Phe	Ser	Val	Asp	Glu	Glu	Phe	Gln	Lys	Leu	Trp	Arg	260	265	270	

4576

Ser Val Thr Val Asp Ser Met Asp Glu Glu Lys Ile Glu Glu Tyr Leu  
 275 280 285

Lys Arg Gln Gly Ile Ser Ser Met Gln Glu Ser Gly Pro Lys Lys Val  
 290 295 300

Ala Pro Ile Gln Arg Arg Lys Lys Pro Ala Ser Gln Lys Lys Arg Arg  
 305 310 315 320

Phe Lys Thr His Asn Glu His Leu Ala Gly Val Leu Lys Asp Tyr Ser  
 325 330 335

Asp Ile Thr Ser Ser Asn Arg Xaa Gln Phe Cys Leu Gly Xaa Glu Leu  
 340 345 350

Gln Ile His Xaa Gln Glu Xaa Ser Cys  
 355 360

&lt;210&gt; 5084

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5084

Ile Arg Asn Thr Cys Ile Trp Trp Lys Pro Trp Ile Ser Thr Ser Ser  
 1 5 10 15

Asn Tyr Ser Ser Leu Tyr Ser Leu Leu Cys Lys Leu Val Tyr Asn Leu  
 20 25 30

Gln Ala Asp Leu Lys Ile Phe Leu Tyr Leu Ile Ala Ala Ala Phe Ile  
 35 40 45

Leu Gly Ser Ala Val Thr Phe Asn Tyr Leu Asn Leu Leu Pro Glu Gly  
 50 55 60

Met Ser Leu Thr Phe  
 65

&lt;210&gt; 5085

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE



4577

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (94)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5085

Leu	Trp	Phe	Arg	Trp	Phe	Gln	Phe	Ser	Asp	Ile	Ser	Ser	Ser	Arg	Lys
1				5						10				15	

Ala	Asp	Ser	Leu	Cys	His	Ser	His	Leu	Ala	Thr	Ala	Ala	Gly	Gly	Ser
			20					25					30		

Gly	Asp	Lys	Asp	Leu	Ser	Ile	Gly	Pro	Ala	His	Gly	Gly	Asn	Thr	Lys
		35					40					45			

Glu	Pro	Gly	Ala	Asp	Ala	Phe	Phe	Arg	Ala	Val	Thr	Thr	Pro	Glu	His
	50					55					60				

Ala	Thr	Leu	Glu	Thr	Ile	Leu	Arg	His	Asn	Gln	Leu	Ile	Leu	Glu	Ala
65					70					75				80	

Ile	Gln	Gln	Lys	Ile	Glu	Cys	Lys	Leu	Phe	Thr	Ser	Xaa	Xaa	Glu	His
			85						90					95	

Leu	Xaa	Lys	Leu
			100

&lt;210&gt; 5086

&lt;211&gt; 21

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5086

Ile	Pro	Ala	Thr	Arg	Glu	Ala	Glu	Ala	Gly	Glu	Ser	Leu	Glu	Pro	Gly
1				5					10				15		

Arg	Trp	Arg	Leu	Gln
			20	

4578

&lt;210&gt; 5087

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

Asp Leu Glu Glu Ile Ile Leu Tyr Tyr Phe Leu Ser Val Phe Phe Asn  
 1 5 10 15

Ala Phe Thr Ser Gly Val Gly Met Leu Asp Phe Ile Phe Leu Lys Thr  
 20 25 30

Asn Lys Ile Trp Lys Ala Leu Pro Leu Asn Val Thr  
 35 40

&lt;210&gt; 5088

&lt;211&gt; 239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5088

Ser Leu Glu Asn Asp Lys Met Arg Leu Glu Lys Asp Leu Ser Phe Lys  
 1 5 10 15

Asp Thr Gln Leu Lys Glu Tyr Glu Glu Leu Leu Ala Ser Val Arg Ala  
 20 25 30

Asn Asn His Gln Gln Gln Gln Gly Leu Gln Asp Ser Ser Ser Lys Cys  
 35 40 45

Gln Ala Leu Glu Glu Asn Asn Leu Ser Leu Arg His Thr Leu Ser Asp  
 50 55 60

Met Glu Tyr Arg Leu Lys Glu Leu Glu Tyr Xaa Lys Arg Asn Leu Glu  
 65 70 75 80

Gln Glu Asn Gln Asn Leu Arg Met Gln Val Ser Glu Thr Cys Thr Gly  
 85 90 95

Pro Met Leu Gln Ala Lys Met Asp Glu Ile Gly Asn His Tyr Thr Glu  
 100 105 110

Met Val Lys Asn Leu Arg Met Glu Lys Asp Arg Glu Ile Cys Arg Leu  
 115 120 125

4579

Arg Ser Gln Leu Asn Gln Tyr His Lys Asp Val Ser Lys Arg Glu Gly  
 130 135 140  
 Ser Cys Ser Asp Phe Gln Phe Lys Leu His Glu Leu Thr Ser Leu Leu  
 145 150 155 160  
 Glu Glu Lys Asp Ser Leu Ile Lys Arg Gln Ser Glu Glu Leu Ser Lys  
 165 170 175  
 Leu Arg Gln Glu Ile Tyr Ser Ser His Asn Gln Pro Ser Thr Gly Gly  
 180 185 190  
 Arg Thr Thr Ile Thr Thr Lys Lys Tyr Arg Thr Gln Tyr Pro Ile Leu  
 195 200 205  
 Gly Leu Leu Tyr Asp Asp Tyr Glu Tyr Ile Pro Pro Gly Ser Glu Thr  
 210 215 220  
 Gln Thr Ile Val Ile Glu Lys Thr Glu Asp Lys Tyr Thr Cys Pro  
 225 230 235

&lt;210&gt; 5089

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5089

Pro Thr Arg Arg Pro Arg Val Xaa Gly Ala Glu Phe Arg Lys Ile Pro  
 1 5 10 15  
 Thr Ser Met Lys Ala Lys Arg Ser His Gln Ala Ile Ile Met Ser Thr  
 20 25 30  
 Ser Leu Arg Val Ser Pro Ser Ile His Gly Tyr His Phe Asp Thr Ala  
 35 40 45  
 Ser Arg Lys Lys Ala Val Gly Asn Ile Phe Glu Asn Thr Asp Gln Glu  
 50 55 60  
 Ser Leu Glu Arg Leu Phe Arg Asn Ser Gly Asp Lys Lys Ala Glu Glu  
 65 70 75 80  
 Arg Ala Lys Ile Ile Phe Ala Ile Asp Gln Asp Val Glu Glu Lys Thr

## 4580

	85		90		95
Arg Ala Leu Met Ala Leu Lys Lys Arg Thr Lys Asp Lys Leu Phe Gln					
100		105		110	
Phe Leu Lys Leu Arg Lys Tyr Ser Ile Lys Val His					
115		120			

&lt;210&gt; 5090

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5090

Gly His Met Glu Leu Ala Met Asp Asn Ser Tyr Ala Phe Asn Gln Arg					
1	5	10	15		
Ser Thr Cys Asn Gly Ile Pro Ser Glu Lys Lys Asn Asn Phe Leu Val					
20	25	30			
Ser Glu Asp His Gly Gln Lys Ile Leu Ser Val Leu Gln Asn Phe Arg					
35	40	45			
Glu Gln Asn Val Phe Tyr Asp Phe Lys Ile Ile Met Lys Asp Glu Ile					
50	55	60			
Ile Pro Cys His Arg Cys Val Leu Ala Ala Cys Ser Asp Phe Phe Arg					
65	70	75	80		
Ala Met Phe Glu Val Asn Met Lys Glu Arg Asp Asp Gly Ser Val Thr					
85	90	95			
Ile Thr Asn Leu Ser Ser Lys Ala Val Lys Ala Phe Leu Asp Tyr Ala					
100	105	110			
Tyr Thr Gly Lys Thr Lys Ile Thr Asp Asp Asn Val Glu Met Phe Phe					
115	120	125			
Gln Leu Ser Ser Phe Leu Gln Val Ser Phe Leu Ser Lys Ala Cys Ser					
130	135	140			
Asp Phe Leu Ile Lys Ser Ile Asn Leu Val Asn Cys Leu Gln Leu Leu					
145	150	155	160		
Ser Ile Ser Asp Ser Tyr Gly Ser Thr Ser Leu Phe Asp His Ala Leu					
165	170	175			
His Phe Val Gln His His Phe Ser Leu Leu Phe Lys Ser Ser Asp Phe					
180	185	190			

4581

Leu Glu Met Asn Phe Gly Val Leu Gln Lys Cys Leu Glu Ser Asp Glu  
 195 200 205

Leu Asn Val Pro Glu Glu Glu Lys  
 210 215

&lt;210&gt; 5091

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5091

Ser Cys Arg Ile Arg His Glu Arg Leu Thr Ser Ala Val Ser Leu Gln  
 1 5 10 15

Leu Arg Ala Pro Gly Ala Ala Arg Pro Ala Ser Gly Leu Pro Asp Arg  
 20 25 30

Leu Trp Pro Ala Pro Ser Pro Ser Pro Gly Ala His Arg Ala Ala Ala  
 35 40 45

Gly Ala Glu Gln Pro Pro Ser Arg Pro Ser Ala Gly Pro Ala Arg Ser  
 50 55 60

Gly Arg Met Asn Asp Phe Gly Ile Lys Asn Met Asp Gln Val Ala Pro  
 65 70 75 80

Val Ala Asn Ser Tyr Arg Gly Thr Leu Lys Arg Gln Pro Ala Phe Asp  
 85 90 95

Thr Phe Asp Gly Ser Leu Phe Ala Val Phe Pro Ser Leu Asn Glu Glu  
 100 105 110

Gln Thr Leu Gln Glu Val Pro Thr Gly Leu Asp Ser Ile Ser His Asp  
 115 120 125

Ser Ala Asn Cys Glu Leu Pro Leu Leu Thr Pro Cys Ser Lys Ala Val  
 130 135 140

Met Ser Gln Ala Leu Lys Ala Thr Phe Ser Gly Phe Lys Lys Glu Gln  
 145 150 155 160

Arg Arg Leu Gly Ile Pro Lys Asn Pro Trp Leu Trp Ser Glu Gln Gln  
 165 170 175

Val Cys Gln Trp Leu Leu Trp Ala Thr Asn Glu Phe Ser Leu Val Asn  
 180 185 190

## 4582

Val	Asn	Leu	Gln	Arg	Phe	Gly	Met	Asn	Gly	Gln	Met	Leu	Cys	Asn	Leu	195	200	205	
Gly	Lys	Glu	Arg	Phe	Leu	Glu	Leu	Ala	Pro	Asp	Phe	Val	Gly	Asp	Ile	210	215	220	
Leu	Trp	Glu	His	Leu	Glu	Gln	Met	Ile	Lys	Glu	Asn	Gln	Glu	Lys	Thr	225	230	235	240
Glu	Asp	Gln	Tyr	Glu	Glu	Asn	Ser	His	Leu	Thr	Ser	Val	Pro	His	Trp	245	250	255	
Ile	Asn	Ser	Asn	Thr	Leu	Gly	Phe	Gly	Thr	Glu	Gln	Ala	Pro	Tyr	Gly	260	265	270	
Met	Gln	Thr	Gln	Asn	Tyr	Pro	Lys	Gly	Gly	Leu	Leu	Asp	Ser	Met	Cys	275	280	285	
Pro	Ala	Ser	Thr	Pro	Ser	Val	Leu	Ser	Ser	Glu	Gln	Glu	Phe	Gln	Met	290	295	300	
Phe	Pro	Lys	Ser	Arg	Leu	Ser	Ser	Val	Ser	Val	Thr	Tyr	Cys	Ser	Val	305	310	315	320
Ser	Gln	Asp	Phe	Pro	Gly	Ser	Asn	Leu	Asn	Leu	Leu	Thr	Asn	Asn	Ser	325	330	335	
Gly	Thr	Pro	Lys	Asp	His	Asp	Ser	Pro	Glu	Asn	Gly	Ala	Asp	Ser	Phe	340	345	350	
Glu	Ser	Ser	Asp	Ser	Leu	Leu	Gln	Ser	Trp	Asn	Ser	Gln	Ser	Ser	Leu	355	360	365	
Leu	Asp	Val	Gln	Arg	Val	Pro	Ser	Phe	Glu	Ser	Phe	Glu	Asp	Asp	Cys	370	375	380	
Ser	Gln	Ser	Leu	Cys	Leu	Asn	Lys	Pro	Thr	Met	Ser	Phe	Lys	Asp	Tyr	385	390	395	400
Ile	Gln	Glu	Arg	Ser	Asp	Pro	Val	Glu	Gln	Gly	Lys	Pro	Val	Ile	Pro	405	410	415	
Ala	Ala	Val	Leu	Ala	Gly	Phe	Thr	Gly	Ser	Gly	Pro	Ile	Gln	Leu	Trp	420	425	430	
Gln	Phe	Leu	Leu	Glu	Leu	Leu	Ser	Asp	Lys	Ser	Cys	Gln	Ser	Phe	Ile	435	440	445	
Ser	Trp	Thr	Gly	Asp	Gly	Trp	Glu	Phe	Lys	Leu	Ala	Asp	Pro	Asp	Glu	450	455	460	

## 4583

Val Ala Arg Arg Trp Gly Lys Arg Lys Asn Lys Pro Lys Met Asn Tyr  
465 470 475 480

Glu Lys Leu Ser Arg Gly Leu Arg Tyr Tyr Tyr Asp Lys Asn Ile Ile  
485 490 495

His Lys Thr Ser Gly Lys Arg Tyr Val Tyr Arg Phe Val Cys Asp Leu  
500 505 510

Gln Asn Leu Leu Gly Phe Thr Pro Glu Glu Leu His Ala Ile Leu Gly  
515 520 525

Val Gln Pro Asp Thr Glu Asp  
530 535

<210> 5092

<211> 452

<212> PRT

<213> Homo sapiens

<400> 5092

Asp Pro Arg Val Arg Pro Arg Arg Pro Gln Ser Leu Ser Pro Val Leu  
1 5 10 15

Ser Leu Ser Pro Asp Ser Met Ser Phe Thr Thr Arg Ser Thr Phe Ser  
20 25 30

Thr Asn Tyr Arg Ser Leu Gly Ser Val Gln Ala Pro Ser Tyr Gly Ala  
35 40 45

Arg Pro Val Ser Ser Ala Ala Ser Val Tyr Ala Gly Ala Gly Gly Ser  
50 55 60

Gly Ser Arg Ile Ser Val Ser Arg Ser Thr Ser Phe Arg Gly Gly Met  
65 70 75 80

Gly Ser Gly Gly Leu Ala Thr Gly Ile Ala Gly Gly Leu Ala Gly Met  
85 90 95

Gly Gly Ile Gln Asn Glu Lys Glu Thr Met Gln Ser Leu Asn Asp Arg  
100 105 110

Leu Ala Ser Tyr Leu Asp Arg Val Arg Ser Leu Glu Thr Glu Asn Arg  
115 120 125

Arg Leu Glu Ser Lys Ile Arg Glu His Leu Glu Lys Lys Gly Pro Gln  
130 135 140

Val Arg Asp Trp Ser His Tyr Phe Lys Ile Ile Glu Asp Leu Arg Ala

4584

145	150	155	160
Gln Ile Phe Ala Asn Thr Val Asp Asn Ala Arg Ile Val Leu Gln Ile	165	170	175
Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Val Lys Tyr Glu Thr	180	185	190
Glu Leu Ala Met Arg Gln Ser Val Glu Asn Asp Ile His Gly Leu Arg	195	200	205
Lys Val Ile Asp Asp Thr Asn Ile Thr Arg Leu Gln Leu Glu Thr Glu	210	215	220
Ile Glu Ala Leu Lys Glu Glu Leu Leu Phe Met Lys Lys Asn His Glu	225	230	235
Glu Glu Val Lys Gly Leu Gln Ala Gln Ile Ala Ser Ser Gly Leu Thr	245	250	255
Val Glu Val Asp Ala Pro Lys Ser Gln Asp Leu Ala Lys Ile Met Ala	260	265	270
Asp Ile Arg Ala Gln Tyr Asp Glu Leu Ala Arg Lys Asn Arg Glu Glu	275	280	285
Leu Asp Lys Tyr Trp Ser Gln Gln Ile Glu Glu Ser Thr Thr Val Val	290	295	300
Thr Thr Gln Ser Ala Glu Val Gly Ala Ala Glu Thr Thr Leu Thr Glu	305	310	315
Leu Arg Arg Thr Val Gln Ser Leu Glu Ile Asp Leu Asp Ser Met Arg	325	330	335
Asn Leu Lys Ala Ser Leu Glu Asn Ser Leu Arg Glu Val Glu Ala Arg	340	345	350
Tyr Ala Leu Gln Met Glu Gln Leu Asn Gly Ile Leu Leu His Leu Glu	355	360	365
Ser Glu Leu Ala Gln Thr Arg Ala Glu Gly Gln Arg Gln Ala Gln Glu	370	375	380
Tyr Glu Ala Leu Leu Asn Ile Lys Val Lys Leu Glu Ala Glu Ile Ala	385	390	395
Thr Tyr Arg Arg Leu Leu Glu Asp Gly Glu Asp Phe Asn Leu Gly Asp	405	410	415
Ala Leu Asp Ser Ser Asn Ser Met Gln Thr Ile Gln Lys Thr Thr Thr			



420

425

430

Val Leu Arg His  
450

<210> 5093

$\langle 211 \rangle$  110

<212> PRT

<213> Homo sapiens

<400> 5093

Leu Ser Ile Phe Ser Ser Ser Pro Ile Met Val Asp Asn Asp Ser Ser  
1 5 10 15

Gly Thr Ser Asp Lys Asp His Ser Glu Ile Leu Asp Gly Ile Ser Asn  
20 25 30

Ile Lys Leu Asn Ser Glu Glu Val Thr Gln Ser Gln Leu Asp Ser Cys  
35 40 45

Thr Ser His Asp Gly His Gln Gln Leu Ser Glu Val Ser Ser Lys Arg  
50 55 60

Glu Cys Pro Ala Ser Gly Gln Ser Glu Pro Arg Asn Gly Gly Thr Asn  
65 70 75 80

Glu Glu Ser Asn Ser Ser Gly Asn Thr Asn Thr Asp Pro Pro Ala Glu  
85 90 95

Asp Ser Gln Lys Ser Ser Gly Ala Asn Gln Ala Lys Thr Asp  
100 105 110

<210> 5094

<211> 66

<212> PRT

<213> Homo sapiens

<400> 5094

Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Gly Arg Ser Arg  
1 5 10 15

Lys Ile Leu Thr His Lys Asn Phe Gly Leu Glu Ser Phe Pro Gly Val  
20 25 30

## 4586

Val Pro Ile Lys Thr Asp Leu Glu Arg Lys Pro Ala Gln His Gly Thr  
 35 40 45

Cys Phe Leu Asn Ser Leu Glu Ser Val Trp Cys Met Ser Leu Leu Ile  
 50 55 60

Tyr Ser  
 65

<210> 5095

<211> 241

<212> PRT

<213> Homo sapiens

<400> 5095

Ser Phe Ser Glu Met Ala Gly Val Ser Ala Cys Ile Lys Tyr Ser Met  
 1 5 10 15

Phe Thr Phe Asn Phe Leu Phe Trp Leu Cys Gly Ile Leu Ile Leu Ala  
 20 25 30

Leu Ala Ile Trp Val Arg Val Ser Asn Asp Ser Gln Ala Ile Phe Gly  
 35 40 45

Ser Glu Asp Val Gly Ser Ser Ser Tyr Val Ala Val Asp Ile Leu Ile  
 50 55 60

Ala Val Gly Ala Ile Ile Met Ile Leu Gly Phe Leu Gly Cys Cys Gly  
 65 70 75 80

Ala Ile Lys Glu Ser Arg Cys Met Leu Leu Leu Phe Phe Ile Gly Leu  
 85 90 95

Leu Leu Ile Leu Leu Leu Gln Val Ala Thr Gly Ile Leu Gly Ala Val  
 100 105 110

Phe Lys Ser Lys Ser Asp Arg Ile Val Asn Glu Thr Leu Tyr Glu Asn  
 115 120 125

Thr Lys Leu Leu Ser Ala Thr Gly Glu Ser Glu Lys Gln Phe Gln Glu  
 130 135 140

Ala Ile Ile Val Phe Gln Glu Glu Phe Lys Cys Cys Gly Leu Val Asn  
 145 150 155 160

Gly Ala Ala Asp Trp Gly Asn Asn Phe Gln His Tyr Pro Glu Leu Cys  
 165 170 175

Ala Cys Leu Asp Lys Gln Arg Pro Cys Gln Ser Tyr Asn Gly Lys Gln

4587

180 185 190

Val Tyr Lys Glu Thr Cys Ile Ser Phe Ile Lys Asp Phe Leu Ala Lys  
195 200 205

Asn Leu Ile Ile Val Ile Gly Ile Ser Phe Gly Leu Ala Val Ile Glu  
210 215 220

Ile Leu Gly Leu Val Phe Ser Met Val Leu Tyr Cys Gln Ile Gly Asn  
225 230 235 240

Lys

&lt;210&gt; 5096

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5096

Gly Gly Phe Phe Ser Ile Ser Phe Lys Arg Cys Met Ser Glu Phe Pro  
1 5 10 15

Leu His Thr Lys Asn Trp Ser Leu Glu Pro His Tyr Ser Leu Ser Gln  
20 25 30

Val Leu Val Pro Tyr Thr Pro Glu Cys Gln Met Val Gly Ala Asp Trp  
35 40 45

Lys Lys Glu Lys Ser Ser Ser Arg Cys Val Gly Ser His Pro Pro His  
50 55 60

Ile Ala Ser Pro Ser Ser Glu Gln Trp Ala Trp Gly Arg Lys Leu Phe  
65 70 75 80

Gln

&lt;210&gt; 5097

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5097

Arg Pro Gln Arg Leu Gly Arg Leu Gly Phe Pro Leu Pro Pro Arg Thr  
1 5 10 15

4588

Pro Lys Asp Thr Pro Asn Pro Arg Pro Ala Gly Pro Ala Leu Ala Arg  
                   20                  25                  30  
 Pro Lys Tyr Tyr Leu Ala Gln Ala Ser Ala Arg Gly Thr Pro Lys Leu  
                   35                  40                  45  
 Pro Met Tyr Pro Ala Pro Glu Gly Leu His Ser Gln Glu Val Pro Met  
                   50                  55                  60  
 Tyr Pro Asn Thr Gly Arg His Pro Ala Pro Pro Ser Gln Thr Arg Lys  
                   65                  70                  75                  80  
 Lys Val Asn Leu Thr Thr Thr Tyr Ser Pro Lys Thr Thr Tyr Phe Val  
                   85                  90                  95  
 Leu Ala Gly Leu Pro Ala Thr  
                   100

&lt;210&gt; 5098

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

4589

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5098

Ile	Gly	Thr	Ser	Ser	Phe	Ala	Asn	His	Pro	Pro	Ala	Ala	Arg	Leu	Phe
1				5					10					15	

Pro	Ala	Asn	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys	Gln	Gln	Xaa
		20						25					30		

Ala	Xaa	Leu	Arg	Glu	Asp	Leu	Lys	Xaa	Xaa	Glu	Xaa	Lys	Trp	Ser	Ser
		35					40					45			

Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val	Arg	Glu	Asn
	50					55					60				

Thr	Asp	Xaa	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe	Arg	Leu	Asp
65					70					75					80

Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu	Val	Glu	Lys
				85					90					95	

Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn	Ser	Gln	Ile
			100					105					110		

Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr	Leu	Pro	Met
		115					120					125			

Gln	Gly	Lys	Arg	Leu	His	Asp	Leu	Phe	Ile	Lys	His	Phe	Arg	Met	
	130					135					140				

&lt;210&gt; 5099

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5099

Thr	Met	Ile	Thr	Pro	Ser	Ser	Lys	Leu	Thr	Leu	Thr	Lys	Gly	Asn	Lys
1				5					10					15	

Ser	Trp	Ser	Ser	Thr	Ala	Val	Ala	Ala	Ala	Leu	Glu	Leu	Val	Asp	Pro
				20				25					30		

## 4590

Pro Gly Cys Arg Asn Ser Ala Arg Gly Xaa Gly Asn Glu Tyr Ile His  
           35                                  40                                  45

Phe Ser Val Ile Lys Leu Leu Lys Val Asn Phe Asn Val Leu Ile Val  
           50                                  55                                  60

Phe Leu Met Cys Ala Ala Glu Met Ala Met Ser Leu Leu Asn Leu His  
           65                                  70                                  75                                  80

Leu Gln Leu Lys Gly Ser Phe Arg Arg Lys Tyr Lys Leu Ala Phe Ile  
                                   85                                  90                                  95

Leu Gln Thr Ile Val Phe Tyr Phe Ile Ile Leu Ile Cys Phe Val Thr  
                                   100                                  105                                  110

His Lys Lys Glu Thr Ile Pro Glu Leu  
           115                                  120

&lt;210&gt; 5100

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5100

Gln Xaa Glu Leu Xaa Leu Lys Lys Lys Lys Lys Ile Ile Cys Lys Ile  
       1                                  5                                  10                                  15

Asn Ser Gly Ile Val Val Leu Phe Lys Glu Met Phe Cys Lys Leu Ser  
                                   20                                  25                                  30

Ser His Tyr Ile Ile Phe Ile Val Leu Ser  
           35                                  40

&lt;210&gt; 5101

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4591

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5101

Lys Tyr His Ser Ser His Xaa Asn Ile Pro Phe Asn Leu Leu Phe Leu  
1 5 10 15

Lys Gly Tyr Cys Lys Tyr Glu Ser Ile Tyr Lys Val Asn Cys Tyr Phe  
20 25 30

Phe Cys Ser Glu Lys Tyr Thr Leu Lys Ile Val Ile Val Asn Asn Val  
35 40 45

&lt;210&gt; 5102

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

Glu Arg Asn Trp Met Phe Gln Lys Leu Leu His Leu Leu Gln Met Ser  
1 5 10 15

Gln Ile Gln Leu Leu Pro Phe Glu Asn Val Gly Glu Met Ser Leu Lys  
20 25 30

Asn Met Phe Val Cys Lys Asn Val Ser Val Cys Asn Ser  
35 40 45

&lt;210&gt; 5103

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

Val Trp Gly Pro Pro Val Pro Ser Trp Ala Ala Glu Gly Gly Ala Phe  
1 5 10 15

Tyr Pro Arg Phe Leu Ser Leu Leu Lys Ser Leu Glu Gln Thr Val Ala  
20 25 30

Ala Leu His Pro Leu Leu Phe Lys Lys Asn Phe Phe Ser Arg Lys Lys

4592

35 40 45  
 Met Leu Ser Val Cys Trp Gly Lys Phe  
 50 55

<210> 5104  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (26)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5104  
 Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp  
 1 5 10 15  
 Pro Arg Val Arg Ser Leu Asp Ser Asn Xaa Leu Ser Ile Asn Phe Ser  
 20 25 30  
 Pro Gln Thr Thr Val Asn Phe Tyr Phe Leu Ser Ala Glu Ile Phe His  
 35 40 45  
 Arg Trp Lys Leu Met Phe Gln Phe  
 50 55

<210> 5105  
 <211> 370  
 <212> PRT  
 <213> Homo sapiens

<400> 5105  
 Lys Gly Arg Ser Ser Glu Ser Thr Thr Pro Leu Asn Val Ser Arg Glu  
 1 5 10 15  
 Thr Leu Gln Gln His Lys Leu Leu Lys Val Ile Arg Lys Lys Leu Val  
 20 25 30  
 Arg Lys Thr Leu Asp Met Ile Lys Lys Ile Ala Asp Asp Lys Tyr Asn  
 35 40 45  
 Asp Thr Phe Trp Lys Glu Phe Gly Thr Asn Ile Lys Leu Gly Val Ile  
 50 55 60  
 Glu Asp His Ser Asn Arg Thr Arg Leu Ala Lys Leu Leu Arg Phe Gln



4593

65					70						75					80
Ser	Ser	His	His	Pro	Thr	Asp	Ile	Thr	Ser	Leu	Asp	Gln	Tyr	Val	Glu	
				85					90					95		
Arg	Met	Lys	Glu	Lys	Gln	Asp	Lys	Ile	Tyr	Phe	Met	Ala	Gly	Ser	Ser	
			100					105					110			
Arg	Lys	Glu	Ala	Glu	Ser	Ser	Pro	Phe	Val	Glu	Arg	Leu	Leu	Lys	Lys	
			115				120					125				
Gly	Tyr	Glu	Val	Ile	Tyr	Leu	Thr	Glu	Pro	Val	Asp	Glu	Tyr	Cys	Ile	
	130					135					140					
Gln	Ala	Leu	Pro	Glu	Phe	Asp	Gly	Lys	Arg	Phe	Gln	Asn	Val	Ala	Lys	
145					150					155					160	
Glu	Gly	Val	Lys	Phe	Asp	Glu	Ser	Glu	Lys	Thr	Lys	Glu	Ser	Arg	Glu	
				165					170					175		
Ala	Val	Glu	Lys	Glu	Phe	Glu	Pro	Leu	Leu	Asn	Trp	Met	Lys	Asp	Lys	
			180					185					190			
Ala	Leu	Lys	Asp	Lys	Ile	Glu	Lys	Ala	Val	Val	Ser	Gln	Arg	Leu	Thr	
		195					200					205				
Glu	Ser	Pro	Cys	Ala	Leu	Val	Ala	Ser	Gln	Tyr	Gly	Trp	Ser	Gly	Asn	
	210					215					220					
Met	Glu	Arg	Ile	Met	Lys	Ala	Gln	Ala	Tyr	Gln	Thr	Gly	Lys	Asp	Ile	
225					230					235					240	
Ser	Thr	Asn	Tyr	Tyr	Ala	Ser	Gln	Lys	Lys	Thr	Phe	Glu	Ile	Asn	Pro	
				245					250					255		
Arg	His	Pro	Leu	Ile	Arg	Asp	Met	Leu	Arg	Arg	Ile	Lys	Glu	Asp	Glu	
			260					265					270			
Asp	Asp	Lys	Thr	Val	Leu	Asp	Leu	Ala	Val	Val	Leu	Phe	Glu	Thr	Ala	
		275					280					285				
Thr	Leu	Arg	Ser	Gly	Tyr	Leu	Leu	Pro	Asp	Thr	Lys	Ala	Tyr	Gly	Asp	
	290					295					300					
Arg	Ile	Glu	Arg	Met	Leu	Arg	Leu	Ser	Leu	Asn	Ile	Asp	Pro	Asp	Ala	
305					310					315					320	
Lys	Val	Glu	Glu	Glu	Pro	Glu	Glu	Glu	Pro	Glu	Glu	Thr	Ala	Glu	Asp	
				325				330						335		
Thr	Thr	Glu	Asp	Thr	Glu	Gln	Asp	Glu	Asp	Glu	Glu	Met	Asp	Val	Gly	

340

345

350

Thr Asp Glu Glu Glu Glu Thr Ala Lys Glu Ser Thr Ala Glu Lys Asp  
355 360 365

```
<210> 5106
<211> 64
<212> PRT
<213> Homo sapiens
```

```
<400> 5106
Ile Ile Ile Ile Lys Lys Ile Asn Ala Met Gln Leu Gly Met Ala Asn
  1               5              10             15
```

Val	Asn	Ala	Tyr	Leu	Tyr	Gln	Arg	Leu	Thr	Leu	Ser	Ser	Gly	Leu	Ser
			20					25					30		

Leu Val Asp Tyr Pro Trp Gln Thr Leu Asn Glu Gln Arg Glu Ala Thr  
35 40 45

Met	Leu	Lys	Asp	Lys	Ser	Pro	Leu	Ser	Ser	Tyr	Tyr	Arg	Asn	Asn	Val
	50					55					60				

```
<210> 5107
<211> 64
<212> PRT
<213> Homo sapiens
```

```
<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (58)
<223> .Xaa-equals any of the naturally occurring L-amino acids
```

```
<400> 5107
Xaa Gln Ala Thr Ala Ile Asn Thr Asp Val Asn Gly Cys Ile Cys Phe
  1             5             10            15
```

## 4595

Ala Val Val Thr Gly Leu Gly Arg Phe Gly Ile Cys Glu Arg Ile Asp  
                   20                  25                  30

Ser Phe Ser Lys Leu Phe His Lys Val Lys Lys Leu His Phe Lys Gly  
                   35                  40                  45

Asn Arg Ser Tyr Ser Ser Leu Lys Ser Xaa Ser Asn Cys Ser Phe Ile  
                   50                  55                  60

<210> 5108  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (9)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (35)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (37)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (93)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5108  
 Val Glu Pro Arg His Ser Ser Ala Xaa Asn Leu His Ser Leu Ser Ile  
       1                  5                  10                  15

Ser His Ser Pro Ser Leu Phe Pro Leu Trp Pro His Trp His Pro Gly  
                   20                  25                  30

Thr Phe Xaa Pro Xaa Gly Leu Cys Thr Tyr Cys Ser Asn Ser Leu Glu  
                   35                  40                  45

Cys Pro His Ser His Thr Lys Ser Leu Ala Ser Phe Thr Ala Leu Leu

4596

50                      55                      60  
 Lys Ser His Leu Leu Ser Glu Ala Phe Pro Asp His Pro Ala Thr Asn  
 65                      70                      75                      80  
 Ser Pro Ser Leu Cys Asn Ile Ala Gly Phe Phe Leu Xaa Ala Phe Ile  
                     85                      90                      95  
 Ile Ser

<210> 5109  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 5109  
 Val Glu Thr Gly Phe Ile Met Leu Cys Arg Leu Leu Ser Asn Ser  
 1                      5                      10                      15

<210> 5110  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (96)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (124)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (130)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (132)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5110  
 Glu Lys Pro Phe Ser Ser Phe Thr Ser Met Lys Ser Ser Asp Val Phe

## 4597

1	5	10	15
Ser Ser Lys Gly Met Thr Arg Trp Gly Glu Phe Asp Asp Leu Tyr Arg	20	25	30
Ile Ser Glu Leu Asp Arg Thr Gln Ile Pro Met Ser Glu Lys Arg Asn	35	40	45
Ser Gln Glu Asp Tyr Leu Ser Tyr His Ser Asn Thr Leu Lys Pro His	50	55	60
Ala Lys Asp Glu Pro Asp Ser Pro Val Leu Tyr Arg Thr Met Ser Glu	65	70	75
Ala Ala Leu Val Arg Lys Arg Met Lys Pro Leu Met Met Asp Arg Xaa	85	90	95
Glu Arg Gln Lys Asn Arg Ala Ser Ile Asn Gly His Phe Tyr Asn His	100	105	110
Glu Thr Ser Ile Phe Ile Pro Ala Phe Glu Ser Xaa Thr Lys Val Arg	115	120	125
Val Xaa Ser Xaa Met Arg Thr Glu Glu Val Ile Lys Gln Leu Leu Gln	130	135	140

&lt;210&gt; 5111

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5111

Arg Phe Phe Ile Ile Val Pro Lys Thr Asn Thr Leu Gln Val Val Leu	1	5	10	15
Glu Arg His His Phe Cys Gly Met Phe Trp Leu Gly Glu Gly Val Thr	20	25	30	
Val Pro Thr Pro Pro Thr Ser Tyr Ala Ser Ala Leu Arg Arg Trp Leu	35	40	45	
Phe Ile Gln Thr Trp Thr Tyr Ser Leu Pro Arg Ala Asp Glu Met Leu	50	55	60	
Asn Phe Leu Trp Gly His Ser Leu Ile Val Pro Ala Ala Ala Thr Gly	65	70	75	80

4598

Ala Ser Leu Glu Ala Ala Cys Ala Lys Thr Thr Gln Leu Ser Leu Gly  
85 90 95  
Ser His Pro Arg Ala Phe Phe Ala Ser Arg Ser Gly Asp Leu Leu Gln  
100 105 110

<210> 5112  
<211> 92  
<212> PRT  
<213> Homo sapiens

<400> 5112  
Glu Ile Tyr Trp Glu Thr Asp Tyr Asn His Ser Gly Thr Ile Asp Ala  
1 5 10 15  
His Glu Met Arg Thr Ala Leu Arg Lys Ala Gly Phe Thr Leu Asn Ser  
20 25 30  
Gln Val Gln Gln Thr Ile Ala Leu Arg Tyr Ala Cys Ser Lys Leu Gly  
35 40 45  
Ile Asn Phe Asp Ser Phe Val Ala Cys Met Ile Arg Leu Glu Thr Leu  
50 55 60  
Phe Lys Leu Phe Ser Leu Leu Asp Glu Asp Lys Asp Gly Met Val Gln  
65 70 75 80  
Leu Ser Leu Ala Glu Trp Leu Cys Cys Val Leu Val  
85 90

<210> 5113  
<211> 27  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (25)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5113  
Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Ser Trp Thr Trp Trp  
1 5 10 15

4599

Ala Pro Val Val Pro Ala Thr Gln Xaa Gly Glu  
                   20                  25

&lt;210&gt; 5114

&lt;211&gt; 333

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5114

Arg Pro Arg Val Arg Glu Asn Leu Pro Leu Trp Gln His Ile Ser Phe  
   1                  5                  10                  15

Gln Ala Leu Pro Pro Glu Leu Arg Glu Gln Thr Val His Glu Val Thr  
                   20                  25                  30

Thr Val Gly Thr Ala Glu Cys Arg Lys Trp Leu Ser Arg Ser Arg Thr  
           35                  40                  45

Leu Gly Glu Leu Glu Ser Leu Asn Thr Val Leu Ser Ala Leu Leu Ala  
       50                  55                  60

Val Cys Asn Ser Ala Gly Glu Ala Leu Asp Thr Gly Lys Gln Thr Ala  
   65                  70                  75                  80

Ile Ile Glu Val Val Ser Gln Leu Trp Ala Phe Leu Asn Ile Lys Gln  
                   85                  90                  95

Val Ala Asp Gln Pro Tyr Val Gln Gln Thr Phe Ser Leu Leu Leu Pro  
           100                  105                  110

Leu Leu Gly Phe Phe Ile Gln Thr Leu Asp Pro Lys Leu Ile Leu Gln  
           115                  120                  125

Ala Val Thr Leu Gln Thr Ser Leu Leu Lys Leu Glu Leu Pro Asp Tyr  
           130                  135                  140

Val Arg Leu Ala Met Leu Asp Phe Val Ser Ser Leu Gly Lys Leu Phe  
   145                  150                  155                  160

Ile Pro Glu Ala Ile Gln Asp Arg Ile Leu Pro Asn Leu Ser Cys Met  
                   165                  170                  175

Phe Ala Leu Leu Leu Ala Asp Arg Ser Trp Leu Leu Glu Gln His Thr  
           180                  185                  190

Leu Glu Ala Phe Thr Gln Phe Ala Glu Gly Thr Asn His Glu Glu Ile  
           195                  200                  205

## 4600

Val Pro Gln Cys Leu Ser Ser Glu Glu Thr Lys Asn Lys Val Val Ser  
 210 215 220  
 Phe Leu Glu Lys Thr Gly Phe Val Asp Glu Thr Glu Ala Ala Lys Val  
 225 230 235 240  
 Glu Arg Val Lys Gln Glu Lys Gly Ile Phe Trp Glu Pro Phe Ala Asn  
 245 250 255  
 Val Thr Val Glu Glu Ala Lys Arg Ser Ser Leu Gln Pro Tyr Ala Lys  
 260 265 270  
 Arg Ala Arg Gln Glu Phe Pro Trp Glu Glu Glu Tyr Arg Ser Ala Leu  
 275 280 285  
 His Thr Ile Ala Gly Ala Leu Glu Ala Thr Glu Ser Leu Leu Gln Lys  
 290 295 300  
 Gly Pro Ala Pro Ala Trp Leu Ser Met Glu Met Glu Ala Leu Gln Glu  
 305 310 315 320  
 Arg Met Asp Lys Leu Lys Arg Tyr Ile His Thr Leu Gly  
 325 330

&lt;210&gt; 5115

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5115

Glu Gln Gln Leu Arg Arg Gly Gly Arg Val Gly Gly Gln Pro Tyr Val  
 1 5 10 15  
 Trp Ser Thr Gln Arg Pro Ala Ile Pro Ile Ser Val Leu Leu Ser Ile  
 20 25 30  
 Ser Ser Glu Asp Leu Ser Glu Asn Arg Ala Gly Met Arg Ser Gln Thr  
 35 40 45

&lt;210&gt; 5116

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



## 4601

&lt;400&gt; 5116

Asn Pro Ile Ser Thr Lys Asn Ala Lys Ile Ser His Val Trp Cys Tyr  
1 5 10 15

Ala Pro Val Val Pro Ala Thr Leu Glu Ala Glu Ala Gly Glu Ser Leu  
20 25 30

Glu Pro Arg Arg Arg Arg Leu Trp  
35 40

&lt;210&gt; 5117

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5117

Asn His Leu Ile Cys Lys Leu Glu Trp Ala Leu Glu Asn His Thr Val  
1 5 10 15

Phe Leu Ser His Phe Thr Gly Lys Ile Thr Asp Val Ser Ile Cys Asp  
20 25 30

&lt;210&gt; 5118

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

Asn Phe Ile Ala Leu Ser Ser Tyr Ile Ile Lys Glu Asp Lys Pro Gln  
1 5 10 15

&lt;210&gt; 5119

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

## 4602

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5119

Pro Leu Pro His Ala Asp Leu Gln Gln Val Ala Gln Xaa Glu Pro Asn  
1 5 10 15

Asn Ala Tyr Asp Glu Glu Asp Cys Val Glu Met Val Ala Ser Gly Gly  
20 25 30

Trp Asn Asp Val Ala Cys His Thr Thr Met Tyr Phe Met Cys Glu Phe  
35 40 45

Asp Lys Glu Asn Met  
50

<210> 5120

<211> 61

<212> PRT

<213> Homo sapiens

<400> 5120

Ser Leu Asp Ile His Lys Glu Arg Arg Tyr Ser Asp Glu Gly Asp His  
1 5 10 15

Asn Ser Val Val Leu Met Ile Leu Asp Tyr Asn Leu Phe Leu Phe Ile  
20 25 30

Phe His Ser Phe Phe Lys Asn Met Asp Cys Ile Leu Ser Thr Thr Ile  
35 40 45

Ser Gln Ile Pro Lys Ile Val Leu Thr Phe Ser Asp Tyr  
50 55 60

<210> 5121

<211> 189

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

4603

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (167)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (178)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5121

Gln	Asn	Asn	Thr	Val	Leu	Val	Glu	Gly	Cys	Phe	Cys	Pro	Glu	Gly	Thr
1				5				10					15		

Met	Asn	Tyr	Ala	Pro	Gly	Phe	Asp	Val	Cys	Val	Lys	Thr	Cys	Gly	Cys
			20				25						30		

Xaa	Gly	Pro	Asp	Asn	Val	Pro	Arg	Glu	Phe	Gly	Glu	His	Phe	Glu	Phe
		35					40					45			

Asp	Cys	Lys	Asn	Cys	Val	Cys	Leu	Glu	Gly	Gly	Ser	Gly	Ile	Ile	Cys
	50					55					60				

Gln	Pro	Lys	Arg	Cys	Ser	Gln	Lys	Pro	Val	Thr	His	Cys	Val	Glu	Asp
65					70					75					80

Gly	Thr	Tyr	Leu	Ala	Thr	Glu	Val	Asn	Pro	Ala	Asp	Thr	Cys	Cys	Asn
				85					90					95	

Xaa	Thr	Val	Cys	Lys	Cys	Gln	His	Gln	Pro	Val	Gln	Arg	Glu	Ala	Leu
			100					105					110		

Arg	Val	Pro	Ala	Gly	Asn	Ser	Lys	Trp	Lys	Ser	Lys	Met	Val	Pro	Gly
		115					120					125			

Lys	Cys	Cys	Pro	Phe	Tyr	Trp	Cys	Glu	Val	Gln	Gly	Gly	Val	Cys	Ser
	130					135					140				

Arg	Gly	Met	Leu	Ser	Thr	Ser	Pro	Val	Leu	Pro	Val	Tyr	Ser	Ser	Lys
145					150					155					160

Trp	Pro	Gly	Leu	Ala	Cys	Xaa	Lys	Gly	Gln	Gly	Gly	Thr	Thr	Thr	Thr
			165						170					175	

Leu	Xaa	Gln	Arg	Ser	Leu	Ala	Trp	Gln	Pro	Thr	Gly	Gly
		180						185				

&lt;210&gt; 5122

## 4604

&lt;211&gt; 225

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5122

Glu Ala Ser Ser Pro Thr Phe Ser Lys Glu Pro Met Lys Val Gln Asp  
 1 5 10 15

Ser Val Leu Ile Lys Ala Asp Asn Thr Ile Glu Gly Asp Asn Asn Glu  
 20 25 30

Gln Asn Tyr Ile Lys Asp Val Lys Leu Glu Asp His Leu Leu Ala Gly  
 35 40 45

Ser Cys Leu Lys Gln Ser Ser Lys Asn Ile Phe Thr Glu Arg Ala Glu  
 50 55 60

Asp Gln Ile Lys Ile Ser Thr Arg Lys Gln Lys Ser Val Lys Glu Ile  
 65 70 75 80

Ser Ser Tyr Thr Pro Lys Asp Cys Thr Ser Arg Asn Gly Pro Glu Arg  
 85 90 95

Gly Cys Asp Arg Gly Ile Ile Val Ser Thr Arg Leu Leu Thr Asp Ser  
 100 105 110

Ser Thr Asp Ala Leu Glu Lys Val Ser Thr Ser Asn Glu Asp Phe Ser  
 115 120 125

Leu Lys Asp Asp Ala Leu Ala Lys Thr Ser Lys Arg Lys Thr Lys Val  
 130 135 140

Gln Lys Asp Glu Ile Cys Ala Lys Leu Ser His Val Ile Lys Lys Gln  
 145 150 155 160

His Arg Lys Ser Thr Leu Val Asp Asn Thr Ile Asn Leu Asp Glu Asn  
 165 170 175

Leu Thr Val Ser Asn Ile Glu Ser Phe Tyr Ser Arg Lys Asp Thr Gly  
 180 185 190

Val Gln Lys Gly Asp Gly Phe Ile His Asn Leu Ser Leu Asp Pro Ser  
 195 200 205

Gly Val Leu Asp Asp Lys Asn Gly Glu Gln Lys Ser Gln Asn Asn Val  
 210 215 220

Leu  
 225

## 4605

&lt;210&gt; 5123

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5123

Glu	Gln	Lys	Gly	Ser	Arg	Glu	Trp	Gly	Ser	Lys	Asn	Gly	Ser	Arg	Val
1				5				10					15		

Arg	Met	Arg	Ser	Gln	Xaa	Lys	Trp	Cys	Phe	Xaa	Gly	Gly	His	Lys	Glu
			20					25					30		

Gly	Arg	Val	Ile	Asp	Phe
			35		

&lt;210&gt; 5124

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5124

Cys	Gln	Thr	Ile	Trp	Arg	Ser	Ile	Arg	Gly	Leu	Thr	Gly	His	Ile	Ile
1				5					10				15		

Arg	Gln	Pro	His	Phe	Ser	Ser	Ser	Ser	Met	Arg	Lys	Trp	Met	Ile	Ser
			20					25					30		

Leu	Phe	His	Met	Ser	Leu	Gly	Glu	Arg	Leu	Pro	Val	Pro	Leu	Lys	Leu
		35					40					45			

Cys	Ile	Leu	Leu	Glu	Thr	Glu	Ala	Ser	Arg	Trp	Leu	Trp	Gln	Leu	Ala
		50				55					60				

Lys	Ala	Lys	Met	Leu	Cys	Ala
		65			70	

## 4606

<210> 5125  
 <211> 184  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (44)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (181)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (184)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5125  
 Arg Arg Val Gln Gln Glu Ile Asp Asp Val Ile Gly Gln Val Arg Arg  
           1                  5                  10                  15  
 Pro Glu Met Gly Asp Gln Ala His Met Pro Tyr Thr Thr Ala Val Ile  
                   20                  25                  30  
 His Glu Val Gln Arg Phe Gly Asp Ile Val Pro Xaa Gly Val Thr His  
           35                  40                  45  
 Met Thr Ser Arg Asp Ile Glu Val Gln Gly Phe Arg Ile Pro Lys Gly  
           50                  55                  60  
 Thr Thr Leu Ile Thr Asn Leu Ser Ser Val Leu Lys Asp Glu Ala Val  
           65                  70                  75                  80  
 Trp Glu Lys Pro Phe Arg Phe His Pro Glu His Phe Leu Asp Ala Gln  
                   85                  90                  95  
 Gly His Phe Val Lys Pro Glu Ala Phe Leu Pro Phe Ser Ala Gly Arg  
           100                  105                  110  
 Arg Ala Cys Leu Gly Glu Pro Leu Ala Arg Met Glu Leu Phe Leu Phe  
           115                  120                  125  
 Phe Thr Ser Leu Leu Gln His Phe Ser Phe Ser Val Pro Thr Gly Gln  
           130                  135                  140  
 Pro Arg Pro Ser His His Gly Val Phe Ala Phe Leu Val Ser Pro Ser  
           145                  150                  155                  160

## 4607

Pro Tyr Glu Leu Cys Ala Val Pro Arg Arg Met Gly Tyr Leu Val Pro  
165 170 175

Ser Leu Leu Pro Xaa Gln Arg Xaa  
180

<210> 5126

<211> 84

<212> PRT

<213> Homo sapiens

<400> 5126

Ala Gln Val Ser Phe Ser Pro Trp Met Ala Ser Ala Ala Pro Gly Arg  
1 5 10 15

Pro His Leu Val Leu Tyr Cys Glu Ser Leu Ala Thr Gln Val Arg Ser  
20 25 30

Gly Pro Gly Pro Arg Met Ala Ser Val Ala Arg Lys Tyr Ala Lys Glu  
35 40 45

Glu Val Asn Pro Ile Ala Gly Leu Glu Asp Ser Asp Gln Thr Thr Arg  
50 55 60

Gly Leu Leu Asn Lys Gly Arg Arg Cys Pro Cys Leu Met Gly Leu Ala  
65 70 75 80

Trp Gly Gly Gly

<210> 5127

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5127

Arg Pro Pro Thr Thr Thr Lys Phe Ala Xaa Ala Arg Gln Met Ala Gly

## 4608

1                      5                      10                      15  
 Lys Gln Ala Val Ser Xaa Ser Gly Lys Trp Leu Asp Gly Ile Arg Lys  
                     20                      25                      30  
 Trp Tyr Tyr Asn Ala Ala Gly Phe Asn Lys Leu Gly Leu Met Arg Asp  
                     35                      40                      45  
 Asp Thr Ile Tyr Glu Asp Glu Asp Val Lys Glu Ala Ile Arg Arg Leu  
                     50                      55                      60  
 Pro Glu Asn Leu Tyr Asn Asp Arg Met Phe Arg Ile Lys Arg Ala Leu  
                     65                      70                      75                      80  
 Asp Leu Asn Leu Lys His Gln Ile Leu Pro Lys Glu Gln Trp Thr Lys  
                     85                      90                      95  
 Tyr Glu Glu Glu Asn Phe Tyr Leu Glu Pro Tyr Leu Lys Glu Val Ile  
                     100                      105                      110  
 Arg Glu Arg Lys Glu Arg Glu Glu Trp Ala Lys Lys  
                     115                      120

&lt;210&gt; 5128

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5128

Tyr Gln Leu Gln Ala Gly Arg Glu Ser Leu Gln His Gly Pro Lys Met  
   1                      5                      10                      15  
 Leu Ser Leu Gln Thr Gly Glu Gly Gln Val Gly Ser His Ser Ser Glu  
                     20                      25                      30  
 Ser Leu Tyr Tyr Thr Ile Glu Ser Tyr Val Phe Ser Arg Phe Gly Val  
                     35                      40                      45  
 Glu Ala Ile His Ile Tyr Glu Glu Ser Gln Ala Gln Glu Gln  
                     50                      55                      60

&lt;210&gt; 5129

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;



4609

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5129

Phe	Lys	Trp	Val	Pro	Gln	Asn	Leu	Val	Val	Ile	Leu	Leu	Gly	Ile	Phe
1				5				10					15		

Val	Gln	Tyr	Ile	Ala	Leu	Xaa	Ser	Ser	Pro	Thr	Phe	Ser	Pro	Leu	Arg
		20					25					30			

Lys	His	Leu	His	Phe	Leu	Ser	Ser	Pro	Asn	Trp	Glu	Asn	Met	Gln	Ile
	35					40						45			

Leu

&lt;210&gt; 5130

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5130

Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Asn	Lys	Cys
1				5				10					15		

Xaa	Val	Xaa	Phe	Ile	Thr	Asn	Ile	Asn	Ile	Ile	Phe	Leu	Leu	Phe	Ile
			20				25					30			

Leu	Tyr	Ala	Ser	Phe	Tyr	Thr	Phe	Thr	His	Thr	Lys	Asn	Ile	Lys	Asn
	35					40					45				

Ile	Ser	Asn	Tyr	Ser	Ile	Leu	Val	Glu	Phe	Ser	Leu	Lys
	50				55					60		

&lt;210&gt; 5131

&lt;211&gt; 58

## 4610

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5131

Ile Tyr Val Lys His Lys Pro Leu Ile Phe Leu Lys Lys Ser Arg Leu  
 1 5 10 15

Leu Phe Phe His Ile Ile Ser Glu Pro Phe Ser Ser Phe Ala Cys Pro  
 20 25 30

Leu Leu Gln Asn His Thr Asp Phe Val Leu His Phe Ile His His Leu  
 35 40 45

Leu Lys Cys Pro Leu Lys Cys Asn Gly Ile  
 50 55

&lt;210&gt; 5132

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5132

Asn Ala Lys Ser Gln Met Tyr Leu Ser Met Asn Phe Asp Ala Cys Thr  
 1 5 10 15

His Leu Tyr Asn Ser Asn His Tyr Xaa Asp Val Glu His Asp His His  
 20 25 30

Thr Arg Gly Pro Pro Ala Pro Ser Gln Leu Ile Leu Ile Ser Thr Pro  
 35 40 45

Glu Ser Asn His Ser Ser Asp Phe Phe His His Arg Leu Val  
 50 55 60

&lt;210&gt; 5133

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

Arg Lys Pro Leu Trp Cys Leu Asn Asp Lys Tyr Ala Asp Ala Thr Leu  
 1 5 10 15

4611

Leu Cys Leu Met Tyr Gly Ala Leu Gly Gln Leu Phe Asn Ile Lys Gln  
                   20                  25                  30  
 Leu Arg Thr Cys Phe Arg Lys Cys Cys Ser Phe Ala Leu His Ala Lys  
                   35                  40                  45  
 Val Leu Gly Lys Lys Leu Thr Ile Cys Lys Asn Ile Asp Ala Gln Ala  
                   50                  55                  60  
 His Lys Glu Phe Ile Leu  
                   65                  70

&lt;210&gt; 5134

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5134

Lys Leu Pro Asn Phe Tyr Gln Leu Glu Gly His Pro Trp Val Phe Val  
           1                  5                  10                  15  
 Arg Ser Tyr Leu Met Ser Leu Cys Leu Gly Asp Ser Ala Gly Trp Ser  
                   20                  25                  30  
 Leu Gly Pro Gly Gly Pro Ser Pro Gly Val Cys Arg Trp Thr Arg Ser  
                   35                  40                  45  
 Pro Thr Gly Asp Ile Asn Leu Arg Val Ala Ser Leu Glu Thr Gly Thr  
                   50                  55                  60  
 Trp Ala Ala Leu Phe Pro Ser Pro Leu Leu Arg Gly Leu Gly Arg Cys  
                   65                  70                  75                  80  
 Cys Phe His Ala Ala Ser Thr Ile Thr Leu Gly Phe Leu Asp Gly Lys  
                   85                  90                  95

&lt;210&gt; 5135

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5135

His Asp Leu Gly Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Arg Phe

## 4612

1                      5                      10                      15  
Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Arg Pro Pro Ser  
                    20                      25                      30  
Arg Pro Gly Asn Phe Phe Val Leu Leu Val Glu Thr Val Ile His Tyr  
                    35                      40                      45  
Val Gly Gln Ala Ser His Glu Leu Leu Thr Ser  
                    50                      55

<210> 5136  
<211> 70  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5136  
Gly Phe Ile Gln Arg Ser Asn Phe Leu Xaa Xaa Gln Lys Ile His Thr  
1                      5                      10                      15  
Glu Glu Lys Leu Tyr Glu Cys Ser Gln Tyr Gly Arg Asp Phe Asn Ser  
                    20                      25                      30  
Thr Thr Asn Val Lys Asn Asn Gln Arg Val His Gln Glu Gly Leu Ser  
                    35                      40                      45  
Leu Ser Lys Ala Pro Ile His Leu Gly Glu Arg Ser Val Asp Lys Gly  
                    50                      55                      60  
Glu His Thr Gly Asn Leu  
65                      70

<210> 5137  
<211> 78  
<212> PRT  
<213> Homo sapiens

## 4613

&lt;400&gt; 5137

Pro Val Ser Phe Tyr Leu Pro Leu Pro Phe Trp Met Lys Met Leu Ile  
 1 5 10 15

Val Gly His Phe Leu Ala Arg Thr Ala Leu Val Pro Leu Thr His Lys  
 20 25 30

Thr Arg Leu Leu Ser Phe Ile Asp Thr Ser Ile Lys Lys Arg Phe Lys  
 35 40 45

Asp Arg Ala Arg Trp Leu Thr Pro Val Ile Pro Ala Leu Trp Glu Ala  
 50 55 60

Glu Ala Gly Gly Ser Pro Glu Val Gly Ser Ser Arg Pro Ala  
 65 70 75

&lt;210&gt; 5138

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5138

Ile Pro Arg Leu Leu Cys Ser Thr Gly Gln Thr Ser Trp Ser Ile Cys  
 1 5 10 15

Val Gly Glu Thr Trp Glu Lys Ala Lys Thr Met Cys Glu Cys Tyr Asp  
 20 25 30

Tyr Leu Phe Asp Ile Ala Val Ser Met Lys Lys Val Gly Leu Asp Pro  
 35 40 45

Ser Gln Leu Pro Val Gly Glu Asn Gly Ile Val  
 50 55

&lt;210&gt; 5139

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5139

Asp Phe Phe Ser Leu Tyr Phe His Pro Thr Asn His Leu Glu Ser Gly  
 1 5 10 15

Ile Lys Gly Ile Asn Gln Glu Lys Thr Glu Gly Gln Glu Thr Glu Pro  
 20 25 30

Asn Lys Gly Asp Pro Ser Gln Gly Ala Trp Glu Ser Ala Gly Leu Asp

## 4614

35

40

45

Ala Pro Pro Ser Ser Ala Ser Tyr  
50 55

&lt;210&gt; 5140

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5140

Thr Gly Leu Glu Thr Leu Gly Ser Gln His Leu Tyr Phe Leu Val Arg  
1 5 10 15

Lys Trp Ala Trp Arg Cys Trp Glu Ile Lys Arg Gly Val Gly Glu Asp  
20 25 30

Pro Val Ser Val Ser Ser Cys Val Val Asp Val Asn Leu Ala Val Asn  
35 40 45

Val Ala Gly Cys Val Ser Cys Leu Leu Ser Asn Cys Trp Leu Pro Arg  
50 55 60

His Ser Val Leu Leu Xaa Phe Ser Glu Phe His  
65 70 75

&lt;210&gt; 5141

&lt;211&gt; 33

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5141

His Ala Ser Ser Leu Gly Asp Arg Val Arg Leu Phe Leu Lys Ile Lys  
1 5 10 15

Thr Lys Asn Lys Phe Leu Leu Glu Val Gly Trp Arg Trp Gly Ala Arg  
20 25 30

Ile

## 4615

&lt;210&gt; 5142

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5142

Met	Tyr	Ser	Lys	Val	Trp	Leu	Pro	Phe	Arg	Ser	Leu	Gly	Gly	Ala	Val
1				5				10						15	

Leu	Asn	Ser	Phe	Ser	Asn	Arg	Ala	Thr	Phe	Tyr	Phe	Leu	Ile	Glu	Leu
			20					25					30		

Leu	Phe	Asn	Phe	Tyr	Phe	Leu	Ile	Gly	Xaa
		35					40		

&lt;210&gt; 5143

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5143

Ala	Gly	Pro	Glu	Leu	Pro	Pro	Leu	Gln	Val	Gln	Met	His	Arg	Cys	Ser
1				5				10						15	

Cys	Pro	Ser	Val	Ser	Ser	Gln	Gly	Cys	Lys	Arg	Arg	Thr	His	Pro	Ser
			20					25					30		

Arg	Lys	Gln	Pro	Glu	Pro	Gly	Thr	Gly	Cys	Ala	Lys	Glu	His	Cys	Tyr
		35					40					45			

Gln	Val	Glu	Glu	Arg	Gly	Leu	Pro	Cys	Thr	Gln	Asp	Val	Glu	Ser	Leu
	50					55					60				

Leu	Arg	Ser	Glu	Gln	Lys	Ile	Lys	Asn	Lys	Ser	Leu	Leu	Lys	Gly	Leu
65					70					75					80

Ile	Gly	Gln	Val	Cys	Phe	Ser	Leu	Glu	Gln	Cys	Phe	Ala	Leu	Glu	Asn
				85					90					95	

Cys	Lys	Ile	Tyr	Val	Met	Thr	Gln	Tyr	Ile	Cys	Val	Arg	Thr	Tyr	Met
			100					105					110		

Ile	Gly	Ile	Lys	Cys	Leu
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## 4616

115

&lt;210&gt; 5144

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5144

Ser Gln Lys Gly Arg Val Ile Ile Lys Glu Glu Ser Asp Gln Glu Ser  
1 5 10 15

Lys Ile Asp Arg Glu Ser Arg Leu Leu Glu Lys Trp Glu Asn Tyr Arg  
20 25 30

Thr Asp Ser Ala Arg Arg Arg Gln Ala Gly Glu Glu Arg Pro Ser Gln  
35 40 45

Ser Ser Thr Cys Ala Asn Arg Lys Cys Val Arg Gly Phe Leu Glu Leu  
50 55 60

Thr Gly Ala Gly Asp His  
65 70

&lt;210&gt; 5145

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5145

Val Met Asn Ile Arg Ile Ile Ala Leu Ser Ala Gly Ser Phe Thr Arg  
1 5 10 15



## 4617

Gln Glu Phe Xaa Asn Cys Pro Ile Asn Ile Cys Leu Xaa Ser Cys Lys  
                   20                  25                  30

Lys Asp Xaa Phe Ile Phe Cys Ile Phe Ile Thr  
           35                  40

<210> 5146

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5146

Phe Gly Ser Leu Lys Met Leu Cys Gly Ala Lys Gln Ile Val Cys Gln  
   1                  5                  10                  15

Met Trp Pro Ser Ser Cys Gln Ser Cys Leu Tyr Gln Asp Ala Ser Leu  
           20                  25                  30

Leu Thr Asn Ser His Ile Ala Thr Gly Val Glu Thr Val Leu Ala Thr  
           35                  40                  45

Lys Leu Xaa Gly Phe His  
           50

<210> 5147

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

4618

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5147

Trp	Tyr	Pro	Xaa	Pro	Pro	Gly	Xaa	Asp	Xaa	Asp	Gly	Pro	Lys	Ser	His
1				5					10					15	

Leu	Gly	Xaa	Arg	Leu	Tyr	Gly	Lys	Xaa	Gly	Leu	Ser	Asn	Tyr	Phe	Gln
			20					25					30		

Tyr	Ser	Ile	Val	Phe	His	Cys	Pro	Phe	Val	Phe	His	Lys	Leu	Asn	Asp
		35					40					45			

Cys	Leu	Ile	Phe	Pro	Lys	Ile	Tyr	Phe
	50					55		

&lt;210&gt; 5148

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5148

Val	Phe	Glu	Pro	Thr	Ser	His	Ala	Thr	Ser	His	Lys	Xaa	Thr	Tyr	His
1				5					10					15	

Leu	Arg	Thr	Ser	Ser	Ala	Lys	Met	Pro	Glu	Asn	Ile	Gln	Ser	Ser	Trp
			20					25					30		

Gln	Met	Thr	Gln	Gly	Ser	Leu	Ala	Leu	Leu	Thr	Ile	Phe	Leu	Ala	Asn
		35					40					45			

Leu	Asp	Trp	Lys	Gly	His	Leu	Gln	His	Cys	Pro	Gly	Ala	Asn	Thr	Leu
	50						55				60				

Phe	His	Cys	Leu	Cys	His	Ile	Met	Met	Pro	Ala	Leu	Ala	Ser	Trp	Trp
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[illegible]

<210> 5150

4620

<211> 80  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5150

Ala	Leu	Leu	Cys	Arg	Ser	Ser	Ser	Tyr	Ile	Gly	Pro	Phe	Lys	Lys	Leu
1				5					10					15	
Pro	Ala	Glu	Ile	Pro	Gly	Val	Ile	Cys	Leu	Glu	His	Xaa	Pro	Leu	Thr
			20					25						30	
Ser	Ser	Thr	His	Leu	Leu	Ala	Ala	Pro	Arg	His	Ser	Ser	Asn	Leu	Ile
		35					40					45			
Leu	Asn	Val	Ile	Ser	Leu	Lys	Lys	Pro	Phe	Leu	Thr	Gln	Ser	Lys	Ile
	50					55					60				
Ser	Thr	Phe	Gly	Tyr	Ser	Leu	Ser	Gln	His	Leu	Asp	Phe	Phe	Pro	Ser
65					70					75					80

<210> 5151  
<211> 29  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 5151

Ser	Phe	Cys	Leu	Tyr	Lys	Ser	Thr	Cys	Ser	Cys	Ala	Asn	Pro	Ser	Val
1					5				10					15	
Asp	Ser	Trp	Gln	His	Glu	Ser	Leu	Ile	Pro	Gly	Tyr	Asn			
			20					25							

<210> 5152  
<211> 181  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE

## 4621

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5152

Val	Ser	Pro	Ser	Pro	Pro	Trp	Thr	Pro	Pro	Gly	Ala	Asp	Arg	Pro	Met
1				5					10					15	

Glu	Ser	Gln	Gly	Val	Pro	Pro	Gly	Pro	Tyr	Arg	Ala	Thr	Lys	Leu	Trp
			20					25					30		

Asn	Glu	Val	Thr	Thr	Ser	Phe	Arg	Ala	Gly	Met	Pro	Leu	Arg	Lys	His
		35					40					45			

Arg	Gln	His	Phe	Lys	Lys	Tyr	Gly	Asn	Cys	Phe	Thr	Ala	Gly	Glu	Ala
	50					55					60				

Val	Asp	Trp	Leu	Tyr	Asp	Leu	Leu	Arg	Asn	Asn	Ser	Asn	Phe	Gly	Pro
65					70					75					80

Glu	Val	Thr	Arg	Gln	Gln	Thr	Ile	Gln	Leu	Leu	Arg	Lys	Phe	Leu	Lys
				85					90					95	

Asn	His	Val	Ile	Glu	Asp	Ile	Lys	Gly	Arg	Trp	Gly	Ser	Glu	Asn	Val
			100					105					110		

Asp	Asp	Asn	Asn	Gln	Leu	Phe	Arg	Phe	Pro	Ala	Thr	Ser	Pro	Leu	Lys
		115					120					125			

Thr	Leu	Pro	Arg	Arg	Tyr	Pro	Glu	Leu	Arg	Lys	Asn	Asn	Ile	Glu	Asn
	130					135					140				

Phe	Ser	Lys	Asp	Lys	Asp	Ser	Ile	Phe	Lys	Leu	Arg	Asn	Leu	Ser	Arg
145					150					155					160

Arg	Thr	Pro	Lys	Arg	His	Gly	Leu	His	Leu	Ser	Xaa	Glu	Asn	Gly	Glu
			165						170					175	

Lys	Ile	Asn	Met	Lys
			180	

&lt;210&gt; 5153

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4622

&lt;400&gt; 5153

Asn Lys Tyr Asn Met Tyr Ile Pro Asp Leu Leu Ser Ile Leu Tyr Lys  
 1 5 10 15

Val Ala Met Thr Lys Gly Ala Asn Lys Tyr Tyr Ile Ile Tyr Leu Ala  
 20 25 30

Phe Leu Leu His Glu Met Met Trp Val Xaa  
 35 40

&lt;210&gt; 5154

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5154

Glu Val Gly Phe Ser Leu Pro Ser Pro Gly Pro Val Cys Pro Tyr Pro  
 1 5 10 15

Arg Pro Ala Ser Cys Ala Gln Ile Leu Phe Cys Leu Trp Lys Leu Leu  
 20 25 30

Asp His Pro Arg Ser Ala Ala Cys Pro Asp Pro Tyr Pro Arg Ala Ser  
 35 40 45

Leu Ser Ser Trp Glu Ala Gly Gln Ala Pro Val Arg Phe Arg Cys Ala  
 50 55 60

Leu Cys Leu Ser Leu Asp Ser Arg Ala Asp Glu Pro Gln His His His  
 65 70 75 80

Pro Ala Thr Tyr Lys Val Gly Asp Leu Gly Leu Gly Ser Gln Ala Gln  
 85 90 95

Thr Gly Gly Pro His Ser Pro Leu Gly Pro Leu Pro Thr Pro Val Pro  
 100 105 110

Ser Val Pro Gln Ser Gly Gly Ala Ser Arg Ala Ile Ser Asp Xaa Ala  
 115 120 125

Gly Pro Arg  
 130

4623

&lt;210&gt; 5155

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5155

Ala	Lys	Pro	Leu	Lys	Leu	Lys	His	Ile	Ser	Tyr	Leu	Lys	His	Leu	Gly
1				5					10					15	

Asn	Thr	Thr	Val	Lys	Tyr	Leu	Ser	Asn	Ile	Gln	Tyr	Met	Glu	Phe	Ile
			20					25					30		

Pro	Thr	Phe	Val	Cys	Ile	Ser	Ile	Cys	Lys	Leu	Leu	Leu	Arg	Arg	Ile
		35					40					45			

Glu	Ser	Leu	Asp	Tyr	Phe	Arg	Ile	Gln	Leu	Leu	Gln	Phe	Ser	Ile	Val
	50					55					60				

Asp

65

&lt;210&gt; 5156

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5156

Val	Gly	Gly	Pro	Gln	Ile	Cys	Arg	Val	Cys	Gly	Asp	Arg	Pro	Trp	Tyr
1				5					10					15	

His	Phe	Asn	Val	Met	Thr	Cys	Glu	Gly	Cys	Lys	Gly	Phe	Phe	Arg	
			20					25					30		

&lt;210&gt; 5157

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

4624

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5157

Ala	Asp	Ala	Trp	Ala	Arg	Ser	Phe	Leu	Val	Asp	Ser	Leu	Val	Leu	Arg
1				5				10						15	

Glu	Ala	Gly	Glu	Lys	Lys	Ala	Pro	Glu	Gly	Ser	Pro	Pro	Pro	Leu	Phe
			20					25						30	

Pro	Tyr	Ala	Val	Pro	Pro	Pro	His	Ala	Leu	His	Gly	Leu	Ser	Pro	Gly
		35					40					45			

Ala	Cys	His	Ala	Arg	Lys	Ala	Gly	Leu	Leu	Cys	Val	Cys	Pro	Leu	Cys
	50					55					60				

Val	Thr	Ala	Ser	Gln	Xaa	His	Gly	Pro	Pro	Gly	Pro	Pro	Arg	Cys	Leu
65					70					75					80

Tyr	Ser	Arg	Leu	Pro	Ser	His	Pro	Ser	Ala	Arg	Ser	Thr	Ala	Arg	Ala
				85					90					95	

Pro	Gly	Pro	Xaa	Ala	Leu	Cys	Xaa	Val	Ala	Arg	Gly
			100					105			

&lt;210&gt; 5158

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (299)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (397)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (413)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



4625

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (428)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5158

Glu Ala Gln Ala Tyr Thr Ala Tyr Leu Ser Gly Met Leu Arg Phe Glu  
 1 5 10 15

His Gln Glu Trp Lys Ala Ala Ile Glu Ala Phe Asn Lys Cys Lys Thr  
 20 25 30

Ile Tyr Glu Lys Leu Ala Ser Ala Phe Thr Glu Glu Gln Ala Val Leu  
 35 40 45

Tyr Asn Gln Arg Val Glu Glu Ile Ser Pro Asn Ile Arg Tyr Cys Ala  
 50 55 60

Tyr Asn Ile Gly Asp Gln Ser Ala Ile Asn Glu Leu Met Gln Met Arg  
 65 70 75 80

Leu Arg Ser Gly Gly Thr Glu Gly Leu Leu Ala Glu Lys Leu Glu Ala  
 85 90 95

Leu Ile Thr Gln Thr Arg Ala Lys Gln Ala Ala Thr Met Ser Glu Val  
 100 105 110

Glu Trp Arg Gly Arg Thr Val Pro Val Lys Ile Asp Lys Val Arg Ile  
 115 120 125

Phe Leu Leu Gly Leu Ala Asp Asn Glu Ala Ala Ile Val Gln Ala Glu  
 130 135 140

Ser Glu Glu Thr Lys Glu Arg Leu Phe Glu Ser Met Leu Ser Glu Cys  
 145 150 155 160

Arg Asp Ala Ile Gln Val Val Arg Glu Glu Leu Lys Pro Asp Gln Lys  
 165 170 175

Gln Arg Asp Tyr Ile Leu Glu Gly Glu Pro Gly Lys Val Ser Asn Leu  
 180 185 190

Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr Ala Ile  
 195 200 205

Lys Arg Asn Glu Asn Met Ala Lys Gly Leu Gln Arg Ala Leu Leu Gln  
 210 215 220

Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln Asp Leu  
 225 230 235 240

## 4626

Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln  
 245 250 255  
 Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu  
 260 265 270  
 Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser  
 275 280 285  
 Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Xaa Val Leu Tyr Asp Arg  
 290 295 300  
 Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys  
 305 310 315 320  
 Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr Gln Val  
 325 330 335  
 Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp Ala Asn  
 340 345 350  
 Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp Asn Lys  
 355 360 365  
 Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Gly Pro Phe Pro Cys  
 370 375 380  
 Ser Pro Ser Lys Pro Thr Leu Trp His Phe Pro Pro Xaa Phe Gln Pro  
 385 390 395 400  
 Phe Pro Trp Gln Gly Phe Cys Ser Leu Asp Trp Ala Xaa Lys Pro Cys  
 405 410 415  
 Gly Leu Phe Pro Pro Leu Glu Gly Gln Val Trp Xaa Arg Lys Asp Gln  
 420 425 430  
 Glu Trp Ala His Trp Val  
 435

&lt;210&gt; 5159

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (154)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4627

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (181)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (184)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (265)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5159

Asp Pro Leu Val Leu Glu Arg Arg Ser Gly Asp Arg Asp Leu Glu Pro  
 1 5 10 15

Asp Trp Leu Ala Gln Leu Arg Arg Gln Leu Glu Gln Lys Val Ala Gly  
 20 25 30

Asp Ile Gly Asp Pro His Pro Thr Arg Ser Asp Ile Ser Gly Ala Gly  
 35 40 45

Gly Thr Thr Thr Glu Asn Thr Phe Tyr Gln Asp Phe Ser Gly Cys Gln  
 50 55 60

Gly Tyr Ser Glu Ala Pro Gly Tyr Arg Ser Ala Leu Trp Leu Thr Pro  
 65 70 75 80

Glu Gln Thr Cys Leu Leu Gln Pro Ser Pro Gln Gln Pro Phe Pro Leu  
 85 90 95

Gln Pro Gly Ser Tyr Pro Ala Gly Gly Gly Ala Gly Gln Thr Gly Thr  
 100 105 110

Pro Arg Pro Phe Tyr Ser Val Pro Glu Thr His Leu Pro Gly Thr Gly  
 115 120 125

Ser Ser Val Ala Val Thr Glu Ala Thr Gly Gly Thr Val Trp Glu Glu  
 130 135 140

Met Leu Gln Thr His Leu Gly Pro Gly Xaa Asn Thr Val Ser Gln Glu  
 145 150 155 160

Thr Ser Gln Pro Pro Asp Gly Gln Glu Val Ile Ser Lys Pro Gln Thr  
 165 170 175

Pro Leu Ala Ala Xaa Pro Arg Xaa Phe Leu Arg Val Pro Pro Val Gln

## 4628

180	185	190
Pro Arg Arg Met Arg Arg Ser	Pro Leu Met Arg Leu Ile Lys Thr Leu	
195	200	205
Pro Glu Ile Leu Pro Arg Glu Ala Ser Ser Glu Met Gly Arg Ser Ile		
210	215	220
Gln Arg Ala Gln Gly Leu Ala Gly Ser Ala Gly Phe Asp Arg Ser Pro		
225	230	235 240
Pro Arg Thr His Pro Pro Leu Glu Thr Arg Thr Pro Gln Thr Ala Leu		
245	250	255
Thr Leu Arg Arg Pro Pro Glu His Xaa Leu Pro Thr Arg Leu Ala Trp		
260	265	270
Ala Phe His		
275		

<210> 5160  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (129)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (132)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (145)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5160  
 Leu Asp Val Asn Phe Gly Asp Thr Val Gln His Thr Pro Pro Arg Ala  
 1 5 10 15

4629

Pro Arg Gly Gln Ser Gly Trp Lys Ala Glu Gly Pro Ser Thr Val Glu  
                   20                  25                  30  
 Ser Pro Arg Leu Arg Ser Asp Ser Leu Val Xaa Glu Val Phe Pro Gly  
                   35                  40                  45  
 Leu Gly Gln Gly Pro Val Ser Pro Glu Val Pro Gly Cys Pro Pro Ser  
                   50                  55                  60  
 Pro His Ser His Val Pro His Ala Gly Gln Ala Leu Leu Ser Arg Asp  
                   65                  70                  75                  80  
 Thr Ala Phe Met Gly Arg His Arg Pro Leu Ser Gln Glu Pro Glu Val  
                                   85                  90                  95  
 Gly Gly Leu Ala Ala Ser Gln Arg Arg Gly Lys Ile Pro Phe Pro Arg  
                   100                  105                  110  
 Ala Phe Gly His Trp Gly Arg Pro Trp Ala Arg Gln Gln Asp Gly Phe  
                   115                  120                  125  
 Xaa Thr Gly Xaa Val Ser Leu Gln Pro Arg Gly Gly Trp Phe Pro Trp  
                   130                  135                  140  
 Xaa Asn  
 145

<210> 5161  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5161  
 Val Lys Ile Glu Pro Glu Asp Leu Asp Ile Ile Gln Val Thr Val Pro  
                   1                  5                  10                  15  
 Asp Pro Ser Pro Thr Ser Glu Glu Met Thr Asp Ser Met Pro Gly His  
                   20                  25                  30  
 Leu Pro Ser Glu Asp Ser Gly Tyr Gly Met Glu Met Leu Thr Asp Lys  
                   35                  40                  45  
 Gly Leu Ser Glu Asp Ala Arg Pro Glu Xaa Arg Pro Val Glu Asp Ser  
                   50                  55                  60

4630

His Gly Asp Val Ile Arg Pro Leu Arg Lys Gln Val Glu Leu Leu Phe  
 65 70 75 80  
 Asn Thr Arg Tyr Ala Lys Ala Ile Gly Ile Ser Glu Pro Val Lys Val  
 85 90 95  
 Pro Tyr Ser Lys Phe Leu Met His Pro Glu Glu Leu Phe Val Val Gly  
 100 105 110  
 Leu Pro Glu Gly Ile Ser Leu Arg Arg Pro Asn Cys Phe Gly Ile Ala  
 115 120 125  
 Lys Leu Arg Lys Ile Leu Glu Ala Ser Asn Ser Ile Gln Phe Val Ile  
 130 135 140  
 Lys Arg Pro Glu Leu Leu Thr Glu Glu Ser Lys Ser Pro Ser Trp Ile  
 145 150 155 160  
 Val Asn Glu

&lt;210&gt; 5162

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5162

Lys Pro Thr Cys Asn Glu Leu Ile Lys Thr Ile Ile Ile Gln His Glu  
 1 5 10 15  
 Asn Ile Phe Pro Ser Pro Arg Xaa Leu Glu Gly Pro Val Tyr Ser Arg  
 20 25 30  
 Gly Gly Ser Met Glu Asp Tyr Cys Asp Ser Pro His Gly Glu Thr Thr  
 35 40 45  
 Ser Val Glu Asp Ser Thr Gln Asp Val Thr Ala Glu His His Thr Ser  
 50 55 60  
 Asp Asp Glu Cys Glu Pro Ile Glu Ala Ile Ala Lys Phe Asp Tyr Val  
 65 70 75 80  
 Gly Arg Thr Ala Arg Glu Leu Ser Phe Lys Lys Gly Ala Ser Leu Leu

## 4631

85								90				95			
Leu	Tyr	Gln	Arg	Ala	Ser	Asp	Asp	Trp	Trp	Glu	Gly	Arg	His	Asn	Gly
100								105				110			
Ile	Asp	Gly	Leu	Ile	Pro	His	Gln	Tyr	Ile	Val	Val	Gln	Asp	Thr	Glu
115								120				125			
Asp	Gly	Val	Val	Glu	Arg	Ser	Ser	Pro	Lys	Ser	Glu	Ile	Glu	Val	Ile
130								135				140			
Ser	Glu	Pro	Pro	Glu	Glu	Lys	Val	Thr	Ala	Arg	Ala	Gly	Ala	Ser	Cys
145								150				155			
Pro	Ser	Gly	Gly	His	Val	Ala	Arg	Tyr	Leu	Ser	Cys	Lys	His	Gln	Gln
165								170				175			
Ala	Lys	Glu	Ala	Ser	Arg	Ile	Trp	Glu	Ala	Ser	Glu	Asn	Phe	Ser	Glu
180								185				190			

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<210> 5163
<211> 319
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids
```

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<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
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```
<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids
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```
<400> 5163
Ala Arg Ala Arg Ala Glu Phe Gly Thr Ser Ser Thr Asn Leu His Leu
  1             5             10             15
```

Glu Ser Glu Leu Asp Ala Leu Ala Ser Leu Glu Asn His Val Lys Thr  
20 25 30

4632

Glu Pro Ala Asp Met Asn Glu Ser Cys Lys Gln Ser Gly Xaa Ser Ser  
 35 40 45  
 Leu Val Asn Gly Xaa Ser Pro Ile Arg Ser Leu Met His Arg Ser Ala  
 50 55 60  
 Arg Ile Gly Gly Xaa Gly Asn Asn Lys Asp Asp Asp Pro Asn Glu Asp  
 65 70 75 80  
 Trp Cys Ala Val Cys Gln Asn Gly Gly Asp Leu Leu Cys Cys Glu Lys  
 85 90 95  
 Cys Pro Lys Val Phe His Leu Thr Cys His Val Pro Thr Leu Leu Ser  
 100 105 110  
 Phe Pro Ser Gly Asp Trp Ile Cys Thr Phe Cys Arg Asp Ile Gly Lys  
 115 120 125  
 Pro Glu Val Glu Tyr Asp Cys Asp Asn Leu Gln His Ser Lys Lys Gly  
 130 135 140  
 Lys Thr Ala Gln Gly Leu Ser Pro Val Asp Gln Arg Lys Cys Glu Arg  
 145 150 155 160  
 Leu Leu Leu Tyr Leu Tyr Cys His Glu Leu Ser Ile Glu Phe Gln Glu  
 165 170 175  
 Pro Val Pro Ala Ser Ile Pro Asn Tyr Tyr Lys Ile Ile Lys Lys Pro  
 180 185 190  
 Met Asp Leu Ser Thr Val Lys Lys Lys Leu Gln Lys Lys His Ser Gln  
 195 200 205  
 His Tyr Gln Ile Pro Asp Asp Phe Val Ala Asp Val Arg Leu Ile Phe  
 210 215 220  
 Lys Asn Cys Glu Arg Phe Asn Glu Met Met Lys Val Val Gln Val Tyr  
 225 230 235 240  
 Ala Asp Thr Gln Glu Ile Asn Leu Lys Ala Asp Ser Glu Val Ala Gln  
 245 250 255  
 Ala Gly Lys Ala Val Ala Leu Tyr Phe Glu Asp Lys Leu Thr Glu Ile  
 260 265 270  
 Tyr Ser Asp Arg Thr Phe Ala Pro Leu Pro Glu Phe Glu Gln Glu Glu  
 275 280 285  
 Asp Asp Gly Glu Val Thr Glu Asp Ser Asp Glu Asp Phe Ile Gln Pro  
 290 295 300



## 4633

Arg Arg Lys Arg Leu Lys Ser Asp Glu Arg Pro Val His Ile Lys  
 305 310 315

<210> 5164

<211> 187

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5164

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Xaa Gly Arg Ser Arg Thr  
 1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Thr Ser Gly Xaa  
 20 25 30

Gly Asn Arg Ala Ala Asn Glu Glu Thr Xaa Asn Lys Pro Lys Leu  
 35 40 45

Asn Ile Gln Ile Lys Thr Leu Ala Asp Asp Val Arg Asp Arg Ile Thr  
 50 55 60

Ser Phe Arg Lys Ser Thr Val Lys Lys Glu Lys Pro Leu Ile Gln His  
 65 70 75 80

Pro Ile Asp Ser Gln Val Ala Met Ser Glu Phe Pro Ala Ala Gln Pro  
 85 90 95

Leu Tyr Asp Glu Arg Ser Leu Asn Leu Ser Glu Lys Glu Val Leu Asp  
 100 105 110

Leu Phe Glu Lys Met Met Glu Asp Met Asn Leu Asn Glu Glu Lys Lys  
 115 120 125

## 4634

Ala Pro Leu Arg Asn Lys Asp Phe Thr Thr Lys Arg Glu Met Val Val  
 130 135 140

Gln Tyr Ile Ser Ala Thr Ala Lys Ser Ile Val Gly Ser Lys Val Thr  
 145 150 155 160

Gly Gly Leu Lys Asn Ser Lys His Glu Cys Thr Leu Ser Ser Gln Glu  
 165 170 175

Tyr Val His Glu Leu Arg Ser Gly Ile Phe Arg  
 180 185

<210> 5165

<211> 266

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (208)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (223)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5165

Thr His Thr Gly Glu Lys Ser Tyr Val Cys Ser Val Cys Gly Arg Gly  
 1 5 10 15

Phe Ser Leu Lys Ala Asn Leu Leu Arg His Gln Arg Thr His Ser Gly  
 20 25 30

Glu Lys Pro Phe Leu Cys Lys Val Cys Gly Arg Gly Tyr Thr Ser Lys  
 35 40 45

Ser Tyr Leu Thr Val His Glu Arg Thr His Thr Gly Glu Lys Pro Tyr  
 50 55 60

Glu Cys Gln Glu Cys Gly Arg Arg Phe Asn Asp Lys Ser Ser Tyr Asn  
 65 70 75 80

Lys His Leu Lys Ala His Ser Gly Glu Lys Pro Phe Val Cys Lys Glu  
 85 90 95

Cys Gly Arg Gly Tyr Thr Asn Lys Ser Tyr Phe Val Val His Lys Arg  
 100 105 110

## 4635

Ile His Ser Gly Glu Lys Pro Tyr Arg Cys Gln Glu Cys Gly Arg Gly  
 115 120 125  
 Phe Ser Asn Lys Ser His Leu Ile Thr His Gln Arg Thr His Ser Gly  
 130 135 140  
 Glu Lys Pro Phe Ala Cys Arg Gln Cys Lys Gln Ser Phe Ser Val Lys  
 145 150 155 160  
 Gly Ser Leu Leu Arg His Gln Arg Thr His Ser Gly Glu Lys Pro Phe  
 165 170 175  
 Val Cys Lys Asp Cys Glu Arg Ser Phe Ser Gln Lys Ser Thr Leu Val  
 180 185 190  
 Tyr His Gln Arg Thr His Ser Gly Glu Lys Pro Phe Val Cys Arg Xaa  
 195 200 205  
 Met Trp Ala Arg Ile Tyr Ser Glu Val Asn Pro Trp Glu Thr Xaa Asp  
 210 215 220  
 His Thr Leu Arg Gly Glu Ala Phe Cys Val Gln Gly Cys Gly Gln Ala  
 225 230 235 240  
 Leu Ser Lys Ser Gln Leu His Phe His Gln Arg Thr His Ser Glu Glu  
 245 250 255  
 Lys Pro Tyr Gly Cys Arg Glu Cys Gly Arg  
 260 265

&lt;210&gt; 5166

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5166

Leu Phe Met Ser Leu Leu Glu Asp Thr Leu Ser Lys Gln Lys Asn Pro  
 1 5 10 15  
 Asp Val Arg Asn Ile Val Gln Gln Gln Phe Cys Gly Glu Tyr Ala Tyr  
 20 25 30  
 Val Thr Val Cys Asn Gln Cys Gly Arg Glu Ser Lys Leu Leu Ser Lys  
 35 40 45  
 Phe Tyr Glu Leu Glu Leu Asn Ile Gln Gly His Lys Gln Leu Thr Asp  
 50 55 60  
 Cys Ile Ser Glu Phe Leu Lys Glu Glu Lys Leu Glu Gly Asp Asn Arg

## 4636

65		70		75		80									
Tyr	Phe	Cys	Glu	Asn	Cys	Gln	Ser	Lys	Gln	Asn	Ala	Thr	Arg	Lys	Ile
			85					90						95	
Arg	Leu	Leu	Ser	Leu	Pro	Cys	Thr	Leu	Asn	Leu	Gln	Leu	Met	Arg	Phe
			100					105						110	
Val	Phe	Asp	Arg	Gln	Thr	Gly	His	Lys	Lys	Lys	Leu	Asn	Thr	Tyr	Ile
		115					120					125			

&lt;210&gt; 5167

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (109)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5167

Ala	Gly	Gly	Gln	Arg	Gly	Gly	Ala	Glu	Ser	Glu	Arg	Gln	His	Leu	Gln
1				5				10						15	
Gln	Arg	Val	Leu	Gly	Glu	Leu	Cys	Ser	Arg	Asn	Thr	Gly	Gly	Asp	Ala
			20					25						30	
Ala	Gly	Ala	Gln	Arg	Glu	Asn	Ala	Thr	Arg	Arg	Thr	Ala	Gly	Thr	Leu
		35					40					45			
Ser	Leu	Glu	Ala	Ser	Gln	Ala	Leu	Lys	Glu	Lys	Ala	Glu	Leu	Gln	Ala
	50					55					60				
Gln	Leu	Ala	Ala	Leu	Ser	Thr	Lys	Leu	Gln	Ala	Gln	Val	Glu	Cys	Ser
65					70					75					80

4637

His Ser Ser Gln Gln Arg Gln Asp Ser Leu Ser Ser Glu Val Asp Thr  
                             85                            90                            95

Leu Lys Gln Ser Cys Trp Asp Xaa Glu Arg Ala Met Xaa Asp Leu Ala  
                             100                            105                            110

Glu His Ala Gly Xaa Lys Lys Cys Gln Leu Ala Ser Phe Gln Gln Arg  
                             115                            120                            125

&lt;210&gt; 5168

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5168

Asn Leu Thr Asn Val Met Tyr Val Thr Asn Pro Ser Gly Met Val Pro  
     1                            5                            10                            15

Pro Leu Leu Tyr Ile Lys Gly Phe Ile Pro Glu Lys Asn His Met Asn  
                             20                            25                            30

Val Met Phe Ala Glu Lys Pro Ser Ala Ile Met His His Ser Leu Asn  
                             35                            40                            45

Ile Lys Glu Tyr Ile Leu Glu Lys Ser Leu Leu Ser Lys Glu Cys Gly  
                             50                            55                            60

Lys Ala Phe Arg Gln Asn Ile His Leu Ala Ser His Leu Arg Ile His  
     65                            70                            75                            80

## 4638

Thr Gly Glu Lys Pro Phe Glu Cys Xaa Glu Cys Gly Lys Ser Phe Ser  
                             85                            90                            95

Ile Ser Ser Gln Leu Ala Thr His Gln Arg Ile His Thr Xaa Glu Lys  
                             100                            105                            110

Pro Tyr Glu Cys Lys Val Cys Ser Lys Ala Phe Thr Gln Lys Val Xaa  
                             115                            120                            125

Leu His Ser Ser Glu Asn Pro Thr Gly Glu Glu Thr Leu  
                             130                            135                            140

<210> 5169  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 5169  
 Met Arg Ser His Cys Pro Lys Leu Trp Pro Phe Leu Cys Tyr Lys His  
   1                            5                            10                            15

Ala Phe Leu Ser Tyr Lys Val Asn Gln Thr Ile Cys Asn Thr Val Leu  
                             20                            25                            30

Gly Cys Asn Leu Cys Phe Cys Ser Thr Val Lys Ile Glu Asn Tyr Val  
                             35                            40                            45

Val Cys Thr Val Leu Ile Lys Ile Leu Asp Phe Tyr  
                             50                            55                            60

<210> 5170  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (24)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5170  
 Gln Leu Thr Thr Val Arg Arg Leu Leu Ser Glu Lys Ala Thr His Val  
   1                            5                            10                            15

Asn Thr Arg Asp Glu Asp Glu Xaa Thr Pro Leu His Arg Ala Ala Tyr  
                             20                            25                            30

## 4639

Ser Gly His Leu Asp Ile Val Gln Glu Leu Ile Ala Gln Gly Ala Asp  
 35 40 45  
 Val His Ala Val Thr Val Asp Gly Trp Thr Pro Leu His Ser Ala Cys  
 50 55 60  
 Lys Trp Asn Asn Thr Arg Val Ala Ser Phe Leu Leu Gln His Asp Ala  
 65 70 75 80  
 Asp Ile Asn Ala Gln Thr Lys Gly Leu Leu Thr Pro Leu His Leu Ala  
 85 90 95  
 Ala Gly Asn Arg Asp Ser Lys Asp Thr Leu Glu Leu Leu Leu Met Asn  
 100 105 110  
 Arg Tyr Val Lys Pro Gly Leu Lys Asn Asn Leu Glu Glu Thr Ala Phe  
 115 120 125  
 Asp Ile Ala Arg Arg Thr Ser Ile Tyr His Tyr Leu Phe Glu Ile Val  
 130 135 140  
 Glu Gly Cys Thr Asn Ser Ser Pro Gln Ser  
 145 150

&lt;210&gt; 5171

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4640

&lt;400&gt; 5171

Thr Xaa Gly Leu Xaa Gly Thr Pro Ala Gly Thr Gly Pro Glu Phe Pro  
 1 5 10 15

Gly Arg Pro Thr Arg Pro Xaa Lys Xaa Met Glu Lys Asp Pro Ser Arg  
 20 25 30

Leu Leu Leu Trp Ala Ala Glu Lys Asn Arg Val Lys Lys Lys Ile Thr  
 35 40 45

Glu Gly Ser Val Thr Val Gly Lys Ala Leu Gly Ser Ser Gln Lys Thr  
 50 55 60

Cys Leu Tyr Cys Tyr Gly His His Thr Tyr Leu Leu Ile Val Arg Thr  
 65 70 75 80

Lys

&lt;210&gt; 5172

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5172

Met Cys Thr Arg Ser Leu Thr Ala Leu Ser Glu Pro Arg Thr Pro Gly  
 1 5 10 15

Pro Pro Gly Leu Thr Thr Thr Pro Ala Pro Pro Asp Lys Leu Gly Gly  
 20 25 30

Lys Gln Arg Ala Ala Phe Lys Ser Gly Lys Arg Val Gly Lys Pro Ser  
 35 40 45

Pro Lys Ala Ala  
 50

&lt;210&gt; 5173

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



## 4641

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5173

Ala	Cys	Ala	Pro	Gly	Ser	Arg	Arg	Leu	Leu	Ser	Ala	Glu	Gln	Pro	Phe
1				5				10						15	

Gly	His	Pro	Leu	Pro	Leu	Lys	Ile	Cys	Arg	Leu	Arg	Leu	Leu	Ser	Ala
			20					25					30		

Gly	Ala	Arg	Pro	Ser	Arg	Pro	Gly	Ala	Gly	Arg	Ala	Leu	Ala	Cys	His
			35				40					45			

Ala	Ala	Arg	Cys	Xaa	Gln	Pro	Gly	Arg	Trp	Gly	Arg	Ala	Val	His	Arg
			50				55				60				

Ala	Arg	Arg	Ala	Arg	Leu	Gly	Ala	Gly	Thr	Glu	Pro	Pro	Trp	Glu	Val
	65				70					75					80

Pro	Arg	Gln	Leu	Arg	Cys	Ser	Pro	Trp	Leu	Gln	Pro	Ser	Pro	Ala	Ala
				85					90					95	

Xaa	Leu	Ala	Glu	Gln	Xaa	Arg	His	Trp	Ala	Pro	Pro
			100					105			

&lt;210&gt; 5174

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5174

Pro	Arg	Phe	Ala	Arg	Ile	Leu	Leu	Met	Asp	Leu	Ser	Val	Thr	Pro	Val
1				5					10					15	

Arg	Gly	His	Leu	Ser	His	Pro	Val	Pro	Glu	Cys	Ser	Pro	His	Pro	His
			20					25					30		

Leu	Trp	Ser	Arg	Glu	Val	Phe	Ala	Pro	Arg	Ile	Cys	Pro	Glu	Leu	Gly
			35				40					45			

His	Gln	Pro	Leu	Gln	Val	Trp	Val	Leu	Leu	Gln	Asp	Cys	Val	Glu	Leu
			50			55					60				

4642

Phe Leu Leu Lys Asn Phe Pro Gly Asp Asp His Ser Ala Trp Ser Leu  
65 70 75 80

Gly Trp Ser Leu Val  
85

&lt;210&gt; 5175

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5175

Ser Gln Val Met Gly Thr Glu Arg Phe Ile Val Leu Phe Leu Phe Leu  
1 5 10 15

Leu Tyr Gly Ser Ser Gln Ser Phe Asn Ser Met Ala Gln Val Thr Gln  
20 25 30

Ser Arg Val Leu Arg Ala Cys Gly Leu Trp Gln His His Pro Gln Thr  
35 40 45

Asp Thr Ala Glu Glu Pro Gly Ala Val Ser Cys Arg Cys Ala Trp Leu  
50 55 60

Gly Thr Glu Trp Lys Ala Leu Gly Arg Ile Phe Ile Glu Val  
65 70 75

&lt;210&gt; 5176

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4643

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5176

Leu	Ser	Thr	Lys	Ile	Tyr	Arg	Ser	Xaa	Ser	Ala	Met	Tyr	Ser	Arg	Thr
1				5				10						15	

Cys	Gln	Arg	Asn	Ser	Lys	Val	Phe	Ala	Thr	Val	Ser	Ser	Pro	Ala	Ala
			20					25					30		

Ile	Xaa	Asp	Asn	Ser	Pro	Ala	Xaa	Xaa	Asn	Val	Val	Glu	Thr	Asn	Pro
		35					40					45			

Phe	Lys	His	Leu	Thr	His	Leu	Ser	Leu	Lys	Leu	Leu	Pro	Gly	Asn	Asp
	50					55					60				

Val	Glu	Ile	Lys	Lys	Phe	Leu	Ala	Gly	Cys	Leu	Lys	Cys	Ser	Lys	Glu
65					70					75					80

Glu	Lys	Leu	Ser	Leu	Met	Gln	Ser	Leu	Asp	Asp	Ala	Thr	Lys	Gln	Leu
				85					90					95	

Asp	Phe	Thr	Arg	Lys	Thr	Leu	Ala	Glu	Lys	Lys	Gln	Glu	Leu	Asp	Lys
			100					105					110		

Leu	Arg	Asn	Glu	Trp	Ala	Ser	His	Thr	Ala	Ala	Leu	Thr	Asn	Lys	His
		115					120					125			

Ser	Gln	Glu	Leu
			130

&lt;210&gt; 5177

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5177

Pro	Ala	Gln	Leu	Leu	Tyr	Glu	Leu	Ala	Lys	Leu	Ala	Gln	Val	Asn	Val
1				5					10					15	

Glu	Phe	Ser	Ala	Arg	Gln	Leu	Leu	Ile	Arg	Thr	Gly	Arg	Asp	Gly	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4644

20                      25                      30  
 Tyr Thr Thr Thr Gly Asp Asn Ser Arg Leu Cys Arg Lys Phe Gln Asp  
           35                      40                      45  
 Leu Gly Ser Arg Thr Met His Asp Thr Gln Ser Xaa Ile Ala Gly Gly  
           50                      55                      60  
 Arg Ala Thr Val Lys Arg Pro Lys Ser Ile Lys Met Cys  
           65                      70                      75

<210> 5178  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5178  
 Phe Gly Thr Ser Arg Arg Arg Xaa Ala Lys Xaa Thr Leu Tyr Cys Arg  
   1                      5                      10                      15  
 Val Phe Leu Leu Asp Gly Thr Glu Val Ser Val Asp Leu Pro Lys His  
           20                      25                      30  
 Ala Lys Gly Gln Asp Leu Phe Asp Gln Ile Val Tyr His Leu Asp Leu  
           35                      40                      45  
 Val Glu Thr Asp Tyr Phe Gly Leu Gln Phe Leu Asp Ser Ala Gln Val  
           50                      55                      60  
 Ala His Trp Leu Asp His Ala Lys Pro Ile Lys Lys Gln Met Lys Ile  
   65                      70                      75                      80  
 Gly Pro Ala Tyr Ala Leu His Phe Arg Val Lys Tyr Tyr Ser Ser Glu  
           85                      90                      95  
 Pro Asn Asn Leu Arg Glu Glu Phe Thr Arg Tyr Leu Phe Val Leu Gln  
           100                      105                      110  
 Leu Arg His Asp Ile Leu Ser Gly Lys Leu Lys Cys Pro Tyr Glu Thr

## 4645

115	120	125
Ala Val Glu Leu Ala Ala Leu Cys Leu Gln Ala Asp Phe Val		
130	135	140

<210> 5179  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5179
Arg Arg His Leu Glu Ile Lys Xaa Leu Ile Met Leu Gln Tyr Cys Ile
1 5 10 15

Tyr Phe Ser Leu Tyr Thr Val Phe Phe Phe Val Ser Pro Glu Thr Ser
20 25 30

Phe Pro Phe Arg Phe Phe Ser Cys Ser Ile Lys Leu Ile Tyr Ile Ser
35 40 45

Thr Tyr Ser Asn Gly Val Leu Val Phe Val Ser
50 55

<210> 5180  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (91)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (102)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

4646

&lt;400&gt; 5180

Leu Pro Leu Arg Asn Lys Ile Leu Met Leu Ser Phe Asp Leu Arg Val  
1 5 10 15

Gly Gly Leu Gly Pro Lys Ala Asp Arg Leu Glu Glu Leu Val Glu Glu  
20 25 30

Leu Glu Ala Ala Pro Cys Cys Pro Leu Leu Glu Val Gly Ser Val Leu  
35 40 45

Asp Leu Leu Val Gln Leu Ala Gly Ser Gly Pro Pro Gln Val Leu Pro  
50 55 60

Arg Lys Arg Asp Tyr Phe Leu Asn Asn Lys His Val Gly Arg Asn Val  
65 70 75 80

Pro Tyr Ser Gly Tyr Asp Cys Asp Asp Leu Xaa Val Phe Glu Met Asp  
85 90 95

Val Gln Ser Leu Ile Xaa Arg Xaa Glu  
100 105

&lt;210&gt; 5181

&lt;211&gt; 217

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (196)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (214)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5181

4647

Val Lys Ile Asn Arg Lys Thr Ala Phe Gly Thr Thr Thr Leu Val Leu  
 1 5 10 15  
 Thr Asp Phe Ser Asn Lys Ser Ser Thr Leu Glu Arg Lys Thr Lys Gln  
 20 25 30  
 Asn Gln Ile Leu Asp Glu Glu Phe Gln Asn Ser Pro Pro Ala Ser Val  
 35 40 45  
 Cys Leu Asn Asp Ile Gln Xaa Pro Ser Lys Lys Thr Thr Asn Asp Ile  
 50 55 60  
 Thr Gln Leu Xaa Ser Ile Val Asn Ile Ser Pro Thr Ile Ser Ser Glu  
 65 70 75 80  
 Ser Lys Leu Phe Ser Pro Ala His Lys Lys Pro Lys Thr Ala His Tyr  
 85 90 95  
 Ser Ser Pro Glu Leu Lys Ser Cys Asn Pro Gly Tyr Ser Asn Ser Glu  
 100 105 110  
 Leu Gln Ile Asn Met Thr Asp Gly Pro Arg Thr Leu Asn Pro Asp Ser  
 115 120 125  
 Pro Arg Cys Ser Lys His Asn Arg Leu Cys Ile Leu Arg Val Val Arg  
 130 135 140  
 Lys Asp Gly Glu Asn Lys Gly Arg Ala Val Leu Cys Leu Ser Ser Tyr  
 145 150 155 160  
 Leu Gly Gly Arg His Asn Val Gly Phe Phe Trp Asn Gly Ala Asp Phe  
 165 170 175  
 Val Pro Phe Pro Phe Trp Gln Pro Gly Ala Arg Arg Phe Pro Pro Trp  
 180 185 190  
 Lys Thr Val Xaa Gly Arg Phe Gly Thr Leu Thr Leu Gly Lys Gly Phe  
 195 200 205  
 Phe Phe Cys Cys Gly Xaa Leu Trp Gly  
 210 215

&lt;210&gt; 5182

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5182

Asn Ile Pro Gly Ser Gly His His Ala Phe Cys Lys Pro Pro Trp Gly

4648

1                      5                      10                      15  
 Ala Ala Glu Leu Asp Met Gly Arg Arg Asp Ala Gln Leu Leu Ala Ala  
                     20                      25                      30  
 Leu Leu Val Leu Gly Leu Cys Ala Leu Ala Gly Ser Glu Lys Pro Ser  
                     35                      40                      45  
 Pro Cys Gln Cys Ser Arg Leu Ser Pro His Asn Arg Thr Asn Cys Gly  
                     50                      55                      60  
 Phe Pro Gly Ile Thr Ser Asp Gln Cys Phe Asp Asn Gly Cys Cys Phe  
                     65                      70                      75                      80  
 Asp Ser Ser Val Thr Gly Val Pro Trp Cys Phe His Pro Leu Pro Lys  
                     85                      90                      95  
 Gln Glu Ser Asp Gln Cys Val Met Glu Val Ser Asp Arg Arg Asn Cys  
                     100                      105                      110  
 Gly Tyr Pro Gly Ile Ser Pro Glu Glu Cys Ala Ser Arg Lys Cys Cys  
                     115                      120                      125  
 Phe Ser Asn Phe Ile Phe Glu Val Pro Trp Cys Phe Phe Pro Lys Ser  
                     130                      135                      140  
 Val Glu Asp Cys His Tyr  
                     145                      150

&lt;210&gt; 5183

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5183

Asn Ser Met Thr Lys Gly Leu Ile Gln Gly Glu Lys Gly Tyr Met Lys  
                     1                      5                      10                      15  
 Thr His Ser Ser Leu Phe Tyr Ser Leu Pro Trp Leu Glu Ile Asn Arg  
                     20                      25                      30  
 His Ile Val Leu Phe Ile Met Gly Arg Lys Val Gly Lys Asp His Leu  
                     35                      40                      45  
 Ser Ala Tyr Gly-Val Leu Ala Leu Ala His Gly Glu  
                     50                      55                      60



4649

&lt;210&gt; 5184

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5184

Leu Ala Ile Asp Ser Thr Gly Leu Lys His Thr Ile Lys Cys Ile His  
1 5 10 15

Asp Ile Val His Thr Gln Lys Pro Pro Leu Ile Ile Glu Ile Thr Cys  
20 25 30

Ile Leu Phe Gly Asn His Leu Ser Leu Val Leu Lys Tyr Tyr Ile Phe  
35 40 45

Cys Ala Ser Met Tyr Phe Ser Ile Tyr Lys Pro Met  
50 55 60

&lt;210&gt; 5185

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5185

Leu Gln Phe Ile Lys Leu Ile Thr Arg Gln Asn Tyr Ile Phe Lys Met  
1 5 10 15

Ser Lys Gly Leu Asn His Glu Lys Asn Ser Ser Thr Leu Leu Pro Asn  
20 25 30

Tyr Cys Phe Gln Asp Ser Gln Ser Met Leu Tyr Ile His Leu Tyr Phe  
35 40 45

Ser Leu Tyr Ile  
50

&lt;210&gt; 5186

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5186

## 4650

Tyr Cys Tyr Ser Arg Thr Val Leu Ile Val Cys Ile Leu Lys Arg Cys  
 1 5 10 15  
 Asp Ser Gly Leu Ile Phe Ile Ser Val Ile Leu Lys Gly Trp Val Trp  
 20 25 30  
 Phe Tyr Arg Val Phe Cys Ile Leu Val Gly Ile His Lys Tyr Gln Met  
 35 40 45  
 Cys Cys Ile Ile Lys Ile Thr Leu Thr Phe Xaa Lys Lys Lys Lys Lys  
 50 55 60  
 Lys Lys Lys Lys Lys  
 65

<210> 5187  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (86)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (90)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (91)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (117)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (121)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5187  
 His Glu Leu Thr Arg Asn Gly Gly Gly Gly Gly Ala Ala Leu Gly Gly  
 1 5 10 15

## 4651

Glu Glu Gly Ala Ala Thr Arg Pro Arg Ala Ala Pro Gly Pro Gly Leu  
                   20                  25                  30

Arg Met Glu Pro Phe Arg Arg Arg Leu Tyr Ala Gly Pro Gln Arg Arg  
           35                  40                  45

Pro Thr Arg Ala Asp Pro Arg His Pro Arg Phe Lys Glu Pro Ser Pro  
       50                  55                  60

Gly Leu Gly Pro Trp Pro Leu Thr Arg Gln Gly Thr Ala Leu Gly Gly  
   65                  70                  75                  80

Leu Val Cys Arg Gly Xaa Pro Ala Ala Xaa Xaa His Gly Tyr Leu Ala  
                   85                  90                  95

Lys Lys Leu His Ser Pro Ser Asp Gln Phe Pro Pro Arg Ala Lys Asn  
                   100                  105                  110

Pro Glu Leu Glu Xaa Asn Ser Leu Xaa Phe Leu  
       115                  120

<210> 5188

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5188

Lys Cys Tyr Ile Leu Leu Gly Tyr Arg Gly Ala Gly Glu Thr Ala Glu  
   1                  5                  10                  15

Glu Arg Lys Asn Met Trp Lys Thr Pro Arg Ser Ser Lys Phe Tyr Pro  
           20                  25                  30

Glu Phe Tyr Leu Pro Cys Met Phe Cys Leu Arg His Phe Ser Cys Asp  
       35                  40                  45

Ile Arg Lys Ala Ile Ser Lys Gly Xaa Phe Phe Val Ala Lys Ile Tyr  
       50                  55                  60

Phe Thr Leu  
       65

4652

<210> 5189  
<211> 57  
<212> PRT  
<213> Homo sapiens

<400> 5189  
Pro Leu Pro Asn Ser Pro Ala Tyr Phe Tyr Ala Thr Phe Pro Phe Thr  
1 5 10 15  
Leu Tyr Ser Leu Ala Ile Phe Asp Ser Ser His Phe Leu Thr Pro Val  
20 25 30  
Phe Ser Gln Tyr Asn Val His Thr Phe Ile Thr Leu Ile Pro Leu Tyr  
35 40 45  
Cys Ile Leu Trp Phe Ala Phe Pro His  
50 55

<210> 5190  
<211> 35  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (32)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5190  
Leu Leu Val Pro Asn Ser Cys Ser Pro Gly Asp Pro Leu Val Leu Glu  
1 5 10 15  
Arg Pro Pro Pro Arg Trp Ser Ser Ser Phe Val Pro Leu Val Arg Xaa  
20 25 30  
Gly Val Ala  
35

<210> 5191  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 5191  
Leu Ile Lys Leu Thr Ser Lys Gln Met Ile Thr Ile His Asn Thr Lys  
1 5 10 15

4653

Gly Arg Thr

&lt;210&gt; 5192

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5192

Ile	Phe	Leu	Glu	Gly	Phe	His	Glu	Ile	Ser	Pro	Ser	His	Ile	Ser	Ser
1				5				10					15		

Val	Gln	Tyr	Lys	Met	Gln	Lys	Cys	Leu	Leu	Xaa	Lys	Thr	Gly	Asp	Leu
			20					25					30		

Ile	Thr	Thr	Thr	Leu	Gly	Ile	Ser	Gln	Leu	Pro	Leu	Gly	Thr	Gln	Pro
			35				40					45			

Pro	Xaa	Val	Glu	Thr	Cys	Leu	Asp	Trp	His	Ser	Gly	Ser	Thr
	50					55					60		

&lt;210&gt; 5193

&lt;211&gt; 326

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (173)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

## 4654

<221> SITE  
 <222> (174)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (228)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (273)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (281)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5193  
 Leu Pro Gln Arg Cys His Gly Val Leu Arg Arg Arg Lys Asp Trp Asn  
   1                  5                  10                  15  
 Val Arg Leu Gln Ala Phe Phe Thr Ser Asp Thr Gly Leu Glu Tyr Glu  
                   20                  25                  30  
 Ala Pro Lys Leu Tyr Pro Ala Ile Pro Ala Ala Arg Arg Arg Pro Ile  
           35                  40                  45  
 Arg Val Leu Ser Leu Phe Asp Gly Ile Ala Thr Gly Tyr Leu Val Leu  
       50                  55                  60  
 Lys Glu Leu Gly Ile Lys Val Gly Lys Tyr Val Ala Ser Glu Val Cys  
   65                  70                  75                  80  
 Glu Glu Ser Ile Ala Val Gly Thr Val Lys His Glu Gly Asn Ile Lys  
                   85                  90                  95  
 Tyr Val Asn Asp Val Arg Asn Ile Thr Lys Lys Asn Ile Glu Glu Trp  
           100                  105                  110  
 Gly Pro Phe Asp Leu Val Ile Gly Gly Ser Pro Cys Asn Asp Leu Ser  
       115                  120                  125  
 Asn Val Asn Pro Ala Arg Lys Gly Leu Tyr Glu Gly Thr Gly Arg Leu  
       130                  135                  140  
 Phe Phe Glu Phe Tyr His Leu Leu Asn Tyr Ser Arg Pro Lys Glu Gly  
   145                  150                  155                  160  
 Asp Asp Arg Pro Phe Phe Trp Met Xaa Glu Asn Val Xaa Xaa Met Lys

## 4655

	165		170		175
Val Gly Asp Lys Arg Asp Ile Ser Arg Phe Leu Glu Cys Asn Pro Val	180		185		190
Met Ile Asp Ala Ile Lys Val Ser Ala Ala His Arg Ala Arg Tyr Phe	195		200		205
Trp Gly Asn Leu Pro Gly Met Asn Arg Pro Val Ile Ala Ser Lys Asn	210		215		220
Asp Lys Leu Xaa Leu Gln Asp Cys Leu Glu Tyr Asn Arg Ile Ala Lys	225		230		235
Leu Lys Lys Val Gln Thr Ile Thr Thr Lys Ser Asn Ser Ile Lys Gln	245		250		255
Gly Lys Asn Gln Leu Phe Pro Val Val Met Asn Gly Lys Glu Asp Val	260		265		270
Xaa Trp Cys Thr Glu Leu Glu Arg Xaa Phe Gly Phe Pro Val His Tyr	275		280		285
Thr Asp Val Ser Asn Met Gly Arg Gly Ala Arg Gln Lys Leu Leu Gly	290		295		300
Arg Ser Trp Ser Val Pro Val Ile Arg His Leu Phe Ala Pro Leu Lys	305		310		315
Asp Tyr Phe Ala Cys Glu	325				

&lt;210&gt; 5194

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5194

Gly His Leu Pro Ser Leu Ile Leu Ser Leu Gln Leu Leu Gly Gln Leu	1	5	10	15
Ser Leu Pro Gln Arg Leu Phe Phe Cys Leu Ser Pro Phe Gly Ile Ser	20	25	30	
His Leu Glu Gly Ile Cys Lys Gly His Ser Val Leu Glu Gln Gly Asn	35	40	45	
Val Ala Ser Ser Ala Gln Thr Ser Leu Ser His Leu Gln Leu Arg Leu	50	55	60	

4656

Gly Met Arg Gly Thr Asp Leu Ala Leu Thr Pro Gly Arg Phe  
 65 70 75

&lt;210&gt; 5195

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5195

Xaa Xaa Pro Ser Leu Xaa Glu Gln Ser Trp Xaa Ser Thr Ala Val Ala  
 1 5 10 15

Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg  
 20 25 30

Ala Glu Leu Asp Ile Phe Phe Lys Asn Lys Ile Arg Cys Gln Pro Ser  
 35 40 45

Lys Met Phe Leu  
 50

&lt;210&gt; 5196

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



4657

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5196

Val Ile Phe Leu Ala Ser Gly Asn Asp Gly Gly Ala Leu Thr Arg Val  
 1 5 10 15

Tyr Cys Gly Met Leu Leu Leu Lys Xaa Arg Arg Glu Leu Ala Arg Arg  
 20 25 30

Arg Gly Ser Arg Leu  
 35

&lt;210&gt; 5197

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5197

Asp Ala Asp His Leu Leu Gln Asn Ser Tyr Leu Glu Gln Phe Lys Leu  
 1 5 10 15

Leu Val Pro Val Asn Lys Asn Thr Asp Gln Asn Ala Leu His Val Ala  
 20 25 30

Tyr Thr Val Gly Ser Leu His Ala Val Leu Asp Met Phe Ile Ser Thr  
 35 40 45

Leu Asn Ala Met Lys Cys Phe Ile Asn Lys Lys Pro Leu Tyr Ile Lys  
 50 55 60

Leu Leu  
 65

&lt;210&gt; 5198

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5198

Cys Glu Ala Cys Thr Gly Lys Ala Pro Arg Ser Gly Gly Ile Pro Glu  
 1 5 10 15

Glu Met Pro Glu Leu Lys Asp Cys Gly Trp Gly Lys Arg Ser Pro Ser  
 20 25 30

4658

Lys Glu Ala Val Cys Gly  
35

&lt;210&gt; 5199

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5199

Asp Val Glu Ile Val Pro Val Leu Gly Asn Tyr Phe Pro Leu Pro Gly  
1 5 10 15

Tyr Gly Lys Glu Asp Val Ile Val Asn Asn Ile His His Pro Val Phe  
20 25 30

Asn Val Leu Gln Gln Cys Ser Asn Leu Phe Phe Ser Phe Val Pro Thr  
35 40 45

Ala Phe Val Tyr Ile Glu Asn Leu Lys Ile Ser Pro Ser Leu Leu Glu  
50 55 60

Val Lys Met Phe Pro Asn Leu Leu Asn Met Pro Leu Phe Thr Ile Cys  
65 70 75 80

Phe Phe Arg Leu Phe Leu Met His Tyr Arg Ile Lys Tyr Asp Phe Val  
85 90 95

Tyr Phe Tyr Tyr Ser Met  
100

&lt;210&gt; 5200

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5200

Phe Leu His His Lys Leu Tyr Leu Asn Val Gly Ala Val Ser Gly Cys  
1 5 10 15

Phe Leu Pro His Gly Glu Thr Trp Ser Ala Val Arg Glu Lys Asn Glu  
20 25 30

Ala Met Met Lys Ala Lys Ser Arg Lys Ser Pro Asp Cys Val Pro Val  
35 40 45

Pro Gly Ser Ser Gly Leu His Val Gln Val His Leu Cys Pro Phe His

4659

50

55

60

Val Leu Ile Val Glu Phe Phe Cys Glu Ile Leu Gln Ile Ser  
 65 70 75

&lt;210&gt; 5201

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5201

Ala His Xaa Ser Ala Arg His Ser Cys Pro Gly Asn Val Ala Ala Arg  
 1 5 10 15

Asn Trp Trp Val Ser Asn Asn Ile Leu Trp  
 20 25

&lt;210&gt; 5202

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (257)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5202

Val Asn Glu Ile Met Ile Leu Glu Gly Gly Gly Val Met Asn Leu Asn  
 1 5 10 15

Pro Gly Asn Asn Leu Leu His Gln Pro Pro Ala Trp Thr Asp Ser Tyr  
 20 25 30

Ser Thr Cys Asn Val Ser Ser Gly Phe Phe Gly Gly Gln Trp His Glu  
 35 40 45

Ile His Pro Gln Tyr Trp Thr Lys Tyr Gln Val Trp Glu Trp Leu Gln  
 50 55 60

His Leu Leu Asp Thr Asn Gln Leu Asp Ala Asn Cys Ile Pro Phe Gln  
 65 70 75 80

4660

Glu Phe Asp Ile Asn Gly Glu His Leu Cys Ser Met Ser Leu Gln Glu  
85 90 95

Phe Thr Arg Ala Ala Gly Thr Ala Gly Gln Leu Leu Tyr Ser Asn Leu  
100 105 110

Gln His Leu Lys Trp Asn Gly Gln Cys Ser Ser Asp Leu Phe Gln Ser  
115 120 125

Thr His Asn Val Ile Val Lys Thr Glu Gln Thr Glu Pro Ser Ile Met  
130 135 140

Asn Thr Trp Lys Asp Glu Asn Tyr Leu Tyr Asp Thr Asn Tyr Gly Ser  
145 150 155 160

Thr Val Asp Leu Leu Asp Ser Lys Thr Phe Cys Arg Ala Gln Ile Ser  
165 170 175

Met Thr Thr Thr Ser His Leu Pro Val Glu Ser Pro Asp Met Lys Lys  
180 185 190

Glu Gln Asp Pro Pro Ala Lys Cys His Thr Lys Lys His Asn Pro Arg  
195 200 205

Gly Thr His Leu Trp Glu Phe Ile Arg Asp Ile Leu Leu Asn Pro Asp  
210 215 220

Lys Asn Pro Gly Leu Ile Lys Trp Glu Asp Arg Ser Glu Gly Val Phe  
225 230 235 240

Arg Phe Leu Lys Ser Glu Ala Val Ala Gln Leu Trp Gly Lys Lys Lys  
245 250 255

Xaa Asn Ser Ser Met Thr Tyr Glu Lys Leu Ser Arg Ala Met Arg Tyr  
260 265 270

Tyr Tyr Lys Arg Glu Ile Leu Glu Arg Val Asp Gly Arg Arg Leu Val  
275 280 285

Tyr Lys Phe Gly Lys Asn Ala Arg Gly Trp Arg Glu Asn Glu Asn  
290 295 300

&lt;210&gt; 5203

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

## 4661

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5203

Arg	Thr	Ser	Ile	Leu	Leu	Lys	Arg	Ala	Cys	Arg	Xaa	Xaa	Ser	Leu	Pro
1				5					10					15	

Pro	Thr	Leu	Ser	His	Leu	Arg	Leu	His	Leu	Gln	Leu	Ala	Pro	Arg	Ser
		20				25							30		

Cys	Gly	Asp	Gly	Ser	Pro	Trp	Gln	Pro	Pro	Ala	Asp	Leu	Ser	Gly	Leu
	35					40						45			

Xaa	Ile	Glu	Glu	Val	Ser	Lys	Ser	Leu	Arg	Phe	Ile	Gly	Leu	Ser	Glu
50						55					60				

Asp	Val	Ile	Ser	Phe	Phe	Val	Thr	Glu	Lys	Ile	Asp	Gly	Asn	Leu	Leu
65					70					75				80	

Val	Gln	Leu	Thr	Glu	Glu	Ile	Leu	Ser	Glu	Asp	Phe	Lys	Leu	Ser	Lys
				85					90					95	

Leu	Gln	Val	Lys	Lys	Ile	Met	Gln	Phe	Ile	Asn	Gly	Trp	Arg	Pro	Lys
		100					105						110		

Ile

&lt;210&gt; 5204

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5204

Lys	Ser	Pro	Thr	Met	Phe	Leu	Asn	Ser	Lys	Cys	Lys	Leu	Ser	Ala	Arg
1				5					10					15	

Val	Asp	Ile	His	Thr	Ala	Cys	Phe	His	Met	Trp	His	Phe	Tyr	Val	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4662

	20		25		30
Cys	Trp	Val	Ile	Val	Leu
	35		40		45
Asp	Trp	Thr	Val	Lys	Tyr
					Val

&lt;210&gt; 5205

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5205

Ala	Pro	Thr	Met	Ala	Glu	Thr	Lys	Leu	Gln	Leu	Phe	Val	Lys	Ala	Ser
1				5				10						15	

Glu	Asp	Gly	Glu	Ser	Val	Gly	His	Cys	Pro	Ser	Tyr	Leu	Asp	Ser	Ala
		20					25						30		

Met	Gln	Glu	Lys	Glu	Phe	Lys	Tyr	Thr	Cys	Pro	His	Ser	Ala	Glu	Ile
		35					40							45	

Leu	Ala	Ala	Tyr	Arg	Pro	Xaa	Val	His	Pro	Arg
	50						55			

&lt;210&gt; 5206

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5206

Pro	Gln	Leu	Ala	Glu	Lys	Ala	Ile	Leu	Lys	Thr	Phe	Pro	Thr	Ala	Tyr
1				5				10						15	

Leu	Cys	Glu	Val	Asn	Leu	Leu	Gln	Gln	Lys	Ser	Leu	Asp	Val	Glu	Ala
		20						25						30	

Ala	Val	Arg	Ile	Gln	Leu	Phe	Ile	Ile	Thr	Arg	Tyr
		35						40			

&lt;210&gt; 5207

&lt;211&gt; 49

4663

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5207

Asp	Ser	Lys	Leu	Glu	Gly	Phe	Glu	Glu	Lys	Glu	Val	Glu	Val	Phe	Cys
1				5					10					15	

Lys	Arg	Thr	Leu	Ile	Leu	Leu	Leu	Glu	Ala	Val	Xaa	Arg	Ala	Leu	Arg
			20					25					30		

Val	Glu	Asn	Xaa	Ser	Ala	Leu	Lys	Gly	Arg	His	Glu	Lys	Gln	Gln	His
		35					40					45			

Gln

&lt;210&gt; 5208

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5208

Lys	Gln	Lys	Arg	Val	Pro	Val	Lys	Trp	Ile	Lys	Gln	Thr	Gly	Lys	Asp
1				5					10					15	

Glu	Ala	Cys	Xaa	Ala	Gly	Gly	Ala	Glu	Ser	Gln	Pro	Ala	Ser	Ser	Val
			20					25					30		

Val	Ile	Leu	Leu	Asn	Leu	Tyr	Gln	Ser	Phe	Gln	Asn	Arg	Gly	Gly	Met
		35					40					45			

Asp	Leu	Pro	Leu	Cys	Asp	Ala	Arg	Ser	Gln	Arg	Trp	Asp	Ser	Val	Ile
	50					55					60				

4664

Gly Leu Cys  
65

&lt;210&gt; 5209

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5209

Arg Glu Lys His Arg Trp Val Ser Pro Arg His Ser Ser Leu Gln Arg  
1 5 10 15

Cys Leu His Arg Ala Asn Pro Ala Phe Leu Lys Gly Ala Phe Pro His  
20 25 30

Leu Met Cys Leu Ser Ala Ser Phe Phe Arg Gln Glu Phe Lys Ser Ile  
35 40 45

Phe Lys Ile Asp Arg Phe Trp Cys Ser Phe Ala Ser Phe Arg Gly Arg  
50 55 60

Leu Ser Pro Ala Ser Gly Ile His Pro His Val Gly Thr Arg Ser Ala  
65 70 75 80

Ala Gly Ser His Val Tyr Glu Met Leu Val Val Phe Phe Phe Phe Ser  
85 90 95

Phe Ile Leu Glu Val Phe Leu  
100

&lt;210&gt; 5210

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5210

Gly Arg Val Tyr Cys Leu Phe Lys Trp His Asn Phe Lys Gly Leu Arg  
1 5 10 15

Val Gln Ser Leu Asn Leu Pro Arg Glu Gly Ala Pro Lys Leu Ser Ser  
20 25 30

Pro His Thr Ser Gly Phe Leu Cys Gly Gly Gly Ala Gly Ile Ser Lys  
35 40 45

Leu Trp Cys Glu Arg Val Gly Glu Met Leu Glu Val Gly Val Leu Cys  
50 55 60



## 4665

Ser Arg Pro Pro Ile Leu Ser Gln Cys Pro Leu Pro Pro Ser Ser Pro  
 65 70 75 80

Thr Pro Cys Pro Gln Phe Cys Gly Ala Ser Arg Leu  
 85 90

<210> 5211

<211> 257

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5211

Gly Ala Val Gly Leu Gly Gly Gln Glu Leu Gln Tyr Gly His Gly Leu  
 1 5 10 15

Ser Arg Leu Ser Thr Ser Ala Phe Arg Ala Tyr Gly Gln Gly Thr Leu  
 20 25 30

Tyr Asp Ser Pro Leu Leu Gln Val Ser Ile His Leu Gly Tyr Gly Ile  
 35 40 45

Tyr Arg Pro Val Ser Leu Gly Ser His Ala Leu Phe Pro Phe Leu Ser  
 50 55 60

Trp Leu Asp Gln Pro Leu Trp Asp Gln His Pro Xaa His Thr Pro Pro  
 65 70 75 80

Asp Cys Ser Ser Ile Thr Arg Ile Ala Leu Tyr Phe Val Gln Lys Gly  
 85 90 95

Leu Ala Val Pro Cys Cys Phe His Leu Cys Lys Pro Ile Val Pro Leu  
 100 105 110

4666

Ala Ala Val Cys Val Arg Val His Val Cys Val Phe His Leu Xaa Ile  
 115 120 125

His Cys Thr Arg Tyr Leu Xaa Ser Ala His Tyr Val Pro Gly Thr Val  
 130 135 140

Ala Glu Phe Leu Trp Val Cys Leu Ser Met Pro Leu Leu Leu Leu Trp  
 145 150 155 160

Gly Pro Leu Ser Val Leu Leu Phe Val Pro Lys Leu Leu Pro Leu Cys  
 165 170 175

Gln Ser Gly Cys Leu Arg Phe Cys Val Ser Leu Cys Ala Phe Leu Ser  
 180 185 190

Leu Ser Val Leu Val Ser Leu Gln Gly Pro Leu Phe Leu Ser Phe Leu  
 195 200 205

Val Ser Val Leu Cys Pro Leu Cys Pro Leu Asp Ser Leu Gly Leu Cys  
 210 215 220

Arg Pro Leu Val Cys Pro Gly Ser Ser Ala Phe Leu Thr Ser Ser Cys  
 225 230 235 240

Pro Pro Leu His Ser Leu Leu Leu Cys Ser Arg Phe Pro Arg Ser His  
 245 250 255

Phe

&lt;210&gt; 5212

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5212

Ile Thr Cys Ser Asp Leu Ile Thr Phe Asp Lys Phe Glu Lys Phe Val  
 1 5 10 15

Phe Gln Thr Glu Pro Val Ser Ile Asn Glu Glu Asn Glu Gly Phe Glu  
 20 25 30

His Asn Thr Gln Val Arg Asn Gln Gly Ile Ile Ala Leu Ser Tyr Arg  
 35 40 45

Asp Trp Glu Val Lys Leu Cys Leu Leu Pro Leu His Ser Ser Asp Ser  
 50 55 60

Ala Phe Thr Cys Ser Lys Pro Ser Ala

4667

65

70

&lt;210&gt; 5213

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5213

Arg Leu Met Thr Ala Phe Leu Arg Ile Ala Asn Arg Gly Gln Arg Gly  
1 5 10 15

Gly Ser Gln His Phe Gly Arg Pro Arg Arg Val Asp His Glu Val Arg  
20 25 30

Ser Ser Arg Thr Ala Trp Pro Arg Trp  
35 40

&lt;210&gt; 5214

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5214

Met Leu Ile Asp Asp Glu Asn Leu Val Gly Cys Arg Ala Gln Phe Arg  
1 5 10 15

Arg Ser Glu Leu Gly Val Gly Asp Arg Phe Gly Gly Gly Ile Ser Gln  
20 25 30

Leu Phe Pro Pro Leu Asn Ser Glu Glu Cys Ser Tyr Ala Arg Ser Gln  
35 40 45

Arg Arg Ala Thr Arg Ser Phe Cys Phe Gly Asp Asn Trp Ser Val Glu  
50 55 60

Ser Pro Arg Ser Ser Phe Val Ala Phe Cys Ile Leu Leu Pro Gly  
65 70 75

&lt;210&gt; 5215

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

4668

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5215

Gln	Ser	Xaa	Tyr	Xaa	Asn	Ser	Gly	Gln	Xaa	Asp	Ala	Ala	Arg	Gly	Thr
1				5					10					15	

Arg	Val	Gly	Arg	Val	Arg	Leu	Trp	Lys	Arg	Ala	Ala	Ala	Ala	His	Asn
		20						25					30		

Met	His	Ser	Leu	Ala	Thr	Ala	Ala	Pro	Val	Pro	Thr	Thr	Leu	Ala	Gln
		35					40					45			

Val	Asp	Arg	Glu	Lys	Ile	Tyr	Gln	Trp	Ile	Asn	Glu	Leu	Ser	Ser	Pro
	50					55					60				

Glu	Thr	Arg	Glu	Asn	Ala	Leu	Leu	Glu	Leu	Ser	Lys	Lys	Arg	Glu	Ser
65				70						75				80	

Val	Pro	Asp	Leu	Ala	Pro	Met	Leu	Trp	His	Ser	Phe	Gly	Thr	Ile	Ala
			85						90					95	

Ala	Leu	Leu	Gln	Glu	Ile	Val	Asn	Ile	Tyr	Pro	Ser	Ile	Asn	Pro	Pro
		100						105					110		

Thr	Leu	Thr	Ala	His	Gln	Ser	Asn	Arg	Val	Cys	Asn	Ala	Leu	Ala	Leu
	115						120					125			

Leu	Gln	Cys	Val	Ala	Ser	His	Pro	Glu	Thr	Arg	Ser	Ala	Phe	Leu	Ala
130						135					140				

Ala	His	Ile	Pro	Leu	Phe	Leu	Tyr	Pro	Phe	Leu	His	Thr	Val	Ser	Lys
145					150					155					160

Thr	Arg	Pro	Phe	Glu	Tyr	Leu	Arg	Leu	Thr	Ser	Leu	Gly	Val	Ile	Gly
			165						170					175	

Ala	Leu	Val	Lys	Thr	Asp	Glu	Gln	Glu	Val	Ile	Asn	Phe	Leu	Leu	Thr
		180						185						190	

Thr	Glu	Ile	Ile	Pro	Leu	Cys	Leu	Arg	Ile	Met	Glu	Ser	Gly	Ser	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4669

195	200	205
Leu Ser Lys Thr Val Ala Thr Phe Ile Leu Gln Lys Ile Leu Leu Asp		
210	215	220
Asp Thr Gly Leu Ala Tyr Ile Cys Gln Thr Tyr Glu Arg Phe Ser His		
225	230	235 240
Val Ala Met Ile Leu Gly Lys Met Val Leu Gln Leu Ser Lys Glu Pro		
	245	250 255
Ser Ala Arg Leu Leu Lys His Val Val Arg Cys Tyr Leu Arg Leu Ser		
	260	265 270
Asp Asn Pro Arg Phe Ser Asp Leu Thr Phe Cys Trp Ser Ser Phe Gln		
	275	280 285
Arg Lys		
290		

<210> 5216  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 5216  
 Ala Arg Phe Ala Arg Ser Ala His Glu Gly Lys Met Pro Lys Lys Lys  
 1 5 10 15  
 Thr Gly Ala Arg Lys Lys Ala Glu Asn Arg Arg Glu Arg Glu Lys Gln  
 20 25 30  
 Leu Arg Ala Ser Arg Ser Thr Ile Asp Leu Ala Lys His Pro Cys Asn  
 35 40 45  
 Ala Ser Met Val Ser Ala Phe Phe Asp Ile Ser Trp  
 50 55 60

<210> 5217  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 5217  
 Glu Ser Ile Gln His Asn Asn Val Leu Lys Pro Ile Asn Leu Leu Ser  
 1 5 10 15

## 4670

Gln Gln Met Lys Pro Gly Met Lys Arg Gln Arg Ser Leu Tyr Arg Glu  
                   20                                  25                                  30

Ile Leu Phe Leu Ser Leu Val Ser Leu Gly Arg Glu Asn Ile Asp Ile  
                   35                                  40                                  45

Glu Ala Phe Asp Asn Glu Tyr Gly Ile Ala Tyr Asn Ser Leu Ser Ser  
                   50                                  55                                  60

Glu Ile Leu Glu Arg Leu Gln Lys Ile Asp Ala Pro Pro Ser Ala Ser  
                   65                                  70                                  75                                  80

Val Glu Trp Cys Arg Lys Cys Phe Gly Ala Pro Leu Ile  
                                   85                                  90

&lt;210&gt; 5218

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5218

Asn Thr Lys Thr Asn Lys Gln Xaa Lys Asn Gln Asn Ala Leu Tyr Arg  
           1                                  5                                  10                                  15

Ile Ala Cys Glu Val Phe Ser Thr Glu Ser Ile Phe Pro Phe Val Ser  
                   20                                  25                                  30

Asp Phe Lys Leu Thr Tyr Glu Gly Arg Glu Met Ile Thr Phe Pro Val  
                   35                                  40                                  45

Lys Ser Ile Asp Asn Leu Ile Asn Leu Val Thr Pro Pro Ser Val Leu  
                   50                                  55                                  60

Asn Ile Thr Lys Phe Val Val Ile Arg Leu Ser Ala Pro Val Phe Ile  
                   65                                  70                                  75                                  80

Val Glu Leu Pro Leu Ser Leu Glu Thr Phe Leu Leu Lys Asn Asp Gly  
                                   85                                  90                                  95

## 4671

Ser Ile Val Phe Xaa Tyr Val Pro Met Lys Val Gly  
 100 105

<210> 5219

<211> 139

<212> PRT

<213> Homo sapiens

<400> 5219

Arg Thr Ser Pro Arg Phe Gln Phe Gln Gly Leu Thr Phe Leu Arg Arg  
 1 5 10 15

Arg Trp Asn Val Lys Gly Gly Arg Lys Glu Ile Lys Arg Pro Gln Val  
 20 25 30

Lys Met Trp Lys Val Thr Ser Ser Leu Arg Pro Arg Gly Thr Arg Arg  
 35 40 45

Glu Ser Pro Arg Gly Pro Arg Pro Ser Glu Arg Val Ala Lys Lys Lys  
 50 55 60

Ser Ala Pro Ala Glu Glu Gln Leu Arg Gly Pro Cys Trp Asp Gln Ser  
 65 70 75 80

Ser Lys Ala Ser Ala Gln Asp Ala Gly Asp His Val Gln Pro Pro Glu  
 85 90 95

Gly Arg Asp Phe Thr Leu Lys Pro Lys Lys Arg Arg Gly Lys Lys Lys  
 100 105 110

Leu Gln Lys Pro Val Glu Ile Ala Glu Asp Ala Thr Leu Glu Glu Thr  
 115 120 125

Leu Val Lys Lys Lys Lys Lys Lys Asp Ser Lys  
 130 135

<210> 5220

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5220

Ser Arg Gln Asn Glu Lys Gly Gly Gly His Cys Ser Pro Leu Asn Ser  
 1 5 10 15

Phe Phe Arg Ser Ser Ser Met Ser Leu Ser Ala Leu Ala Cys Asp Phe  
 20 25 30

4672

Thr Pro Ile Gln Pro Trp Glu Trp Glu Glu Tyr Glu Gln Ile Thr Leu  
           35                                  40                                  45  
 Gly Leu Thr Ala Pro Ser Asn Leu Leu Glu Ser Asn Tyr Leu Gly Gln  
           50                                  55                                  60  
 Ala Ser Glu Cys Phe Val Arg Lys Leu Val Arg Arg Phe Pro Gln Leu  
           65                                  70                                  75                                  80  
 Leu Pro Gly Pro Pro Gly His Cys Arg Lys Asp Leu Gly Asp Pro Gln  
                                   85                                  90                                  95  
 Gln Arg Pro Ile Ala Leu Leu Pro Ser Leu Pro His Gln Glu Arg Asn  
                                   100                                  105                                  110  
 Asn Val His Arg Leu Glu Ala Asp Ser Glu Val Asp Leu  
           115                                  120                                  125

<210> 5221  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (54)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (56)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (57)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5221  
 Asn Tyr Leu Pro Ser Leu Ser Tyr Ala Ser Xaa Ile Gly Met Leu Leu  
       1                                  5                                  10                                  15

Val Ser Met His Thr Thr Thr Phe His Gly Phe Tyr Cys Ala Gln Thr



4673

20                                      25                                      30  
 Leu His Ala Phe Arg Met Ile Tyr Leu Arg Arg Tyr Ile Ile Cys His  
                     35                                      40                                      45  
 Pro Asp Pro Lys Arg Xaa Arg Xaa Xaa Asp His Ser Glu Pro Leu Ile  
                     50                                      55                                      60  
 Arg Lys Leu Leu Ala Ser Val Phe Asp Thr Ser Leu Thr Leu Tyr Ile  
                     65                                      70                                      75                                      80  
 His Val Ile Ile Ser Cys Gln Ile Leu Asp Ser Ile Asn Cys Pro Leu  
                                     85                                      90                                      95  
 Thr Ala Tyr

&lt;210&gt; 5222

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

4674

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5222

Lys	Tyr	Leu	Val	Glu	Ile	Pro	Glu	Phe	Tyr	Glu	Val	Xaa	Asp	Lys	Lys
1				5				10						15	

Xaa	Ala	Gln	Gly	Leu	Leu	Lys	Ser	Thr	Cys	Ile	Ile	Ser	Pro	Phe	Gln
			20					25					30		

Lys	Thr	Xaa	Thr	Xaa	Val	Xaa	Gly	Lys	Ile	Pro	Val	Xaa	Xaa	Ile	Cys
		35					40					45			

Tyr	Xaa	Phe	Leu	Leu	Pro	His	Leu	Ala	Asn	Asn	Phe
	50					55					60

&lt;210&gt; 5223

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (206)

## 4675

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (208)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (209)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (211)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5223

Leu	Thr	Xaa	Xaa	Asn	Lys	Ser	Trp	Xaa	Ser	Thr	Ala	Val	Ala	Ala	Ala
1				5				10					15		

Leu	Glu	Leu	Val	Asp	Pro	Pro	Gly	Cys	Arg	Asn	Ser	Ala	Arg	Ala	Ala
			20				25					30			

Ala	Ser	Met	Lys	Arg	Lys	Ser	Glu	Arg	Arg	Ser	Ser	Trp	Ala	Ala	Ala
		35					40					45			

Pro	Pro	Cys	Ser	Arg	Arg	Cys	Ser	Ser	Thr	Ser	Pro	Gly	Val	Lys	Lys
	50					55					60				

Ile	Arg	Ser	Ser	Thr	Gln	Gln	Asp	Pro	Arg	Arg	Arg	Asp	Pro	Gln	Asp
65					70				75					80	

Asp	Val	Tyr	Leu	Asp	Ile	Thr	Asp	Arg	Leu	Cys	Phe	Ala	Ile	Leu	Tyr
				85					90					95	

Ser	Arg	Pro	Lys	Ser	Ala	Ser	Asn	Val	His	Tyr	Phe	Ser	Ile	Asp	Asn
			100					105					110		

Glu	Leu	Glu	Tyr	Glu	Asn	Phe	Tyr	Ala	Asp	Phe	Gly	Pro	Leu	Asn	Leu
		115					120					125			

Ala	Met	Val	Tyr	Arg	Tyr	Cys	Cys	Lys	Ile	Asn	Lys	Lys	Leu	Lys	Ser
		130				135					140				

Ile	Thr	Met	Leu	Arg	Lys	Lys	Ile	Val	His	Phe	Thr	Gly	Ser	Asp	Gln
145					150					155				160	

Arg	Lys	Gln	Ala	Asn	Ala	Ala	Phe	Leu	Val	Gly	Cys	Tyr	Met	Val	Ile
				165				170						175	

## 4676

Tyr Leu Gly Arg Thr Pro Glu Glu Ala Tyr Arg Ile Leu Ile Phe Gly  
                   180                                  185                                  190

Glu Thr Ser Tyr Ile Pro Phe Arg Asp Ala Ala Tyr Gly Xaa Cys Xaa  
                   195                                  200                                  205

Xaa Thr Xaa Pro  
                   210

<210> 5224

<211> 48

<212> PRT

<213> Homo sapiens

<400> 5224

Lys Gln Arg Gly Asn Leu Lys Ala Thr Leu Thr His Leu Gln Ser Ser  
       1                                  5                                  10                                  15

Gln Ile Leu Thr Phe Thr Arg Leu Ala Phe Cys Phe Trp Ala Ser Pro  
                   20                                  25                                  30

Lys Gln Thr Ala Ser His Pro Asn Arg Gly Arg Met Glu Met Phe Val  
                   35                                  40                                  45

<210> 5225

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5225

Trp Tyr Phe Ser Lys Cys Val Leu Val Val Ile Thr Ser Asn Ile Asn  
       1                                  5                                  10                                  15

Leu Cys Cys Glu Ser Phe Val Ser Phe Ser Thr Val Phe Gln Arg Lys

4677

20 25 30  
 Gly Lys Lys Ser Leu Asn Leu Lys Phe Ile Val Lys Ile Lys Tyr Leu  
 35 40 45  
 Xaa Ala Val Thr Gln Ala His Gly Ser Gln Ala Glu Lys Gly Leu Gly  
 50 55 60  
 Xaa Leu Lys Asn Gly Val Gln Val Val His Gly Arg Leu Leu Asn Ser  
 65 70 75 80  
 Leu Gly Val Gly Met Gly Leu Ala Phe Ser Lys Pro Val His Phe Pro  
 85 90 95  
 Met Ser

&lt;210&gt; 5226

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5226

Cys Leu Ala His Arg Lys Cys Ser Asp Met Leu Ser Asn Lys Lys Leu  
 1 5 10 15

Met Trp Trp Val Gln Trp Leu Thr Pro Val Ile Pro Ala Leu Trp Glu  
 20 25 30

Ala Glu Val Ser Gly Leu Gln Gly Gln Glu Phe Gln Thr Ser Leu Ala  
 35 40 45

Asn Met Xaa Lys Pro Arg Leu Tyr  
 50 55

&lt;210&gt; 5227

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

4678

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5227

Gln	Ser	Lys	Pro	Leu	Asn	Ile	Thr	His	Leu	His	Leu	Gln	Val	Trp	Pro
1				5					10					15	

Gln	Xaa	Phe	Lys	Trp	Leu	Leu	Ser	Leu	Leu	His	Ser	Thr	Tyr	Pro	Leu
			20				25						30		

Leu	Gln	Leu	Phe	His	Lys	Tyr	Arg	Leu	Asn	Ile	Pro	Tyr	Leu	Lys	Cys
		35					40					45			

Leu	Gly	Leu	Xaa	Val	Ser	Asp	Phe	Arg	Tyr	Val	Trp	Ile	Leu	Glu	Tyr
	50					55					60				

Leu	Tyr	Met	Tyr	Asn	Glu	Xaa	Leu	Leu	Glu	Leu	Gly	Pro	Lys	Ser	Lys
65				70					75						80

Gln	Asn	Ser	Phe	Met	Phe	His	Ile	Tyr	Leu	Ile	His	Ile	Thr
				85					90				

&lt;210&gt; 5228

&lt;211&gt; 24

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5228

Lys	Glu	Pro	Met	Gln	Val	Trp	Phe	Leu	Ser	Arg	Lys	Asn	Thr	Gly	Thr
1				5					10					15	

Glu	Glu	Thr	Lys	Gln	Asp	Asp	Asp
			20				

&lt;210&gt; 5229

&lt;211&gt; 133

&lt;212&gt; PRT

4679

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5229

Arg	Ala	Arg	Arg	Gly	Val	Ser	Val	Lys	Ala	Xaa	Lys	Xaa	Glu	Thr	Ala
1				5					10					15	

Ala	Thr	Met	Lys	Asp	Xaa	Ala	Leu	Lys	Xaa	Lys	Val	Ser	Thr	Ala	Thr
			20					25					30		

Val	Ser	Arg	Ala	Leu	Met	Asn	Pro	Asp	Lys	Val	Ser	Gln	Ala	Thr	Arg
		35					40					45			

Asn	Arg	Val	Glu	Lys	Ala	Ala	Arg	Glu	Val	Gly	Tyr	Leu	Pro	Gln	Pro
	50					55					60				

Met	Gly	Arg	Asn	Val	Lys	Arg	Asn	Glu	Ser	Arg	Thr	Ile	Leu	Val	Ile
65					70					75				80	

Val	Pro	Asp	Ile	Cys	Asp	Pro	Phe	Phe	Ser	Glu	Ile	Ile	Arg	Gly	Ile
				85					90					95	

## 4680

Glu Val Thr Ala Ala Asn His Gly Tyr Leu Val Xaa Ile Gly Asp Cys  
                   100                  105                  110

Ala His Gln Asn Gln Gln Glu Lys Thr Phe Ile Xaa Leu Ile Ile Thr  
                   115                  120                  125

Lys Gln Ile Asp Trp  
                   130

<210> 5230

<211> 261

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (230)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (243)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (246)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (250)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (257)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5230

Ser Trp Lys Thr Gly Glu Asp Lys Ser Met Ser Ser Leu Pro Gly Cys  
   1                  5                  10                  15

Ile Gly Leu Asp Ala Ala Thr Ala Thr Val Glu Ser Glu Glu Ile Ala  
                   20                  25                  30

Glu Leu Gln Gln Ala Val Val Glu Glu Leu Gly Ile Ser Met Glu Glu  
                   35                  40                  45



## 4681

Leu Arg His Phe Ile Asp Glu Glu Leu Glu Lys Met Asp Cys Val Gln  
 50 55 60  
 Gln Arg Lys Lys Gln Leu Ala Glu Leu Glu Thr Trp Val Ile Gln Lys  
 65 70 75 80  
 Glu Ser Glu Val Ala His Val Asp Gln Leu Phe Asp Asp Ala Ser Arg  
 85 90 95  
 Ala Val Thr Asn Cys Glu Ser Leu Val Lys Asp Phe Tyr Ser Lys Leu  
 100 105 110  
 Gly Leu Gln Tyr Arg Asp Ser Ser Ser Glu Asp Glu Ser Ser Arg Pro  
 115 120 125  
 Thr Glu Ile Ile Glu Ile Pro Asp Glu Asp Asp Asp Val Leu Ser Ile  
 130 135 140  
 Asp Ser Gly Asp Ala Gly Ser Arg Thr Pro Lys Asp Gln Lys Leu Arg  
 145 150 155 160  
 Glu Ala Met Ala Ala Leu Arg Lys Ser Ala Gln Asp Val Gln Lys Phe  
 165 170 175  
 Met Asp Ala Val Asn Lys Lys Ser Ser Ser Gln Asp Leu His Lys Gly  
 180 185 190  
 Thr Leu Ser Gln Met Ser Gly Glu Leu Ser Lys Asp Gly Asp Leu Ile  
 195 200 205  
 Val Ser Met Arg Ile Leu Gly Lys Lys Arg Thr Lys Thr Trp His Lys  
 210 215 220  
 Gly Pro Leu Leu Pro Xaa Arg Gln Leu Asp Gln Gly Ser Thr Gln Ala  
 225 230 235 240  
 Pro Val Xaa Ser Ala Xaa Gln Ala Gln Xaa Arg Lys Glu Asn His Leu  
 245 250 255  
 Xaa Thr Phe Ile Pro  
 260

&lt;210&gt; 5231

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5231

Ile Asn Pro Ala Leu Leu Arg Lys Gly Asn Leu Phe Arg Gln Ser Gly

4682

1                      5                      10                      15  
 Lys Gly Val Leu Arg Lys Leu Ser Phe Phe Ile Pro Ser Phe Leu Pro  
                     20                      25                      30  
 Thr Thr Val Thr Gly Tyr Arg Gly Leu Trp Thr Leu Lys Thr Asn Val  
                     35                      40                      45  
 Trp Pro Leu Thr Gly Leu Ile Cys Ile Phe Leu  
                     50                      55

<210> 5232  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 5232  
 Thr Ser Ser Pro Trp Ala Ala Pro Pro Gly Ser Gly Gly Pro Glu Pro  
   1                      5                      10                      15  
 Pro Arg Pro Gly Leu Pro Arg Leu Gly Leu Gly Asp Leu Asn Leu Leu  
                     20                      25                      30  
 Thr Leu Gly Cys Pro Ser Trp  
                     35

<210> 5233  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (30)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5233  
 Lys Leu Cys Arg Leu Ile Asn Glu Asp Val Asn Glu Gln Val Met Gln  
   1                      5                      10                      15  
 Val Leu Gly Pro Glu Asp Leu Gln Ser Ile Ile Tyr Lys Xaa Glu Glu  
                     20                      25                      30  
 His Glu Glu Phe Phe Pro Ala Phe Gln Ala Phe Thr Asn Asp Leu Leu  
                     35                      40                      45  
 Glu Ile Leu Glu Ile Asp Asp Leu Asp Ala Ile Val Pro Ala Val Lys

4683

50                                      55                                      60  
 Lys Leu Lys Val Leu Ser Tyr  
 65                                      70  
  
 <210> 5234  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 5234  
 Ala Leu Val Leu Ser Arg Glu Gln Glu Lys Leu Phe Glu Lys Gly Lys  
 1                                      5                                      10                                      15  
  
 Glu Ser Ile Pro Tyr Leu Ile Arg Thr His Arg His Ala Arg His Gly  
 20                                      25                                      30  
  
 His Gly Val His Val His Leu Ser His Val Thr Thr Ala Ala Ile His  
 35                                      40                                      45  
  
 Val His His Thr Ile His Cys Arg Ile Xaa Leu Val Gly Lys Leu Ala  
 50                                      55                                      60  
  
 Ala Gly Glu Arg Ser Leu Ser Lys Gln Met Val Tyr Tyr Leu Trp Ser  
 65                                      70                                      75                                      80  
  
 Thr

<210> 5235  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 5235  
 Ala Asp Lys Asn Glu Ile Leu Phe Ser Glu Phe Asn Ile Asn Tyr Asn  
 1                                      5                                      10                                      15  
  
 Asn Glu Leu Pro Met Tyr Arg Lys Gly Thr Val Leu Ile Trp Gln Lys  
 20                                      25                                      30  
  
 Val Asp Glu Val Met Thr Lys Glu Ile Lys Leu Pro Thr Glu Met Glu

4684

35                      40                      45  
 Gly Lys Lys Met Ala Val Thr Arg Thr Arg Thr Lys Pro Val Pro Leu  
     50                      55                      60  
 His Cys Asp Ile Ile Gly Asp Ala Phe Trp Lys Glu His Pro Glu Ile  
     65                      70                      75                      80  
 Leu Asp Glu Asp Ser  
                             85

<210> 5236  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (30)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5236  
 Leu Glu Cys Trp Val Val Leu Ser Ile Ile Gly Val Lys Cys Gly Ala  
     1                      5                      10                      15  
 Val Ala Tyr Thr Cys Asn Pro Ser Thr Leu Gly Lys Leu Xaa Trp Gly  
                     20                      25                      30  
 Gly Ser Leu Glu Val Gln Glu Phe Glu Ala Thr Leu Gly Gln His Gly  
             35                      40                      45  
 Gly Thr Pro Ile Phe  
     50

<210> 5237  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (44)

## 4685

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5237

Glu	Lys	Xaa	Ser	Gly	Val	Val	Trp	Asp	Arg	Ser	Ala	Thr	His	Ser	Glu
1				5					10					15	
Met	Val	Gln	Glu	Asn	Gln	Phe	Phe	Met	Leu	Tyr	Phe	Gln	Ser	Leu	Tyr
		20						25					30		
Lys	Phe	Val	Phe	Val	Ser	Lys	Ile	Lys	Lys	Arg	Xaa	Lys	Met	Glu	Gly
		35					40					45			
Lys	Ile	Pro	Gly	Arg	Gln	Met	Asn	Lys	Arg	His	Glu				
	50					55					60				

<210> 5238

<211> 59

<212> PRT

<213> Homo sapiens

<400> 5238

Lys	Arg	Lys	Lys	Ser	Phe	Trp	Gly	Met	Leu	Tyr	His	Ser	Asn	Gly	Ser
1				5					10					15	
Val	Thr	Thr	Tyr	Phe	Val	Leu	Ser	Met	Ser	Leu	Ile	Pro	Ser	Tyr	Glu
			20					25					30		
Thr	Ile	Trp	Leu	Asp	Tyr	Pro	Val	Tyr	Cys	Val	Glu	Ile	Lys	Val	Leu
		35					40					45			
Ile	Cys	Thr	Phe	Leu	Val	Gln	Tyr	Leu	Ser	Tyr					
	50					55									

<210> 5239

<211> 54

<212> PRT

<213> Homo sapiens

<400> 5239

Tyr	Leu	His	Phe	His	Ile	Leu	Val	Ile	Cys	Leu	Leu	His	Thr	Trp	Gln
1				5					10					15	
Asn	Lys	Thr	Glu	Ile	Pro	Ser	Gln	Lys	Lys	Lys	Glu	Lys	Glu	Lys	Lys
			20					25					30		
Ile	Ala	Leu	Tyr	Leu	Phe	Leu	Val	Ser	Thr	Ala	Met	Lys	Ile	Leu	Asn
		35					40					45			

4686

Thr Pro Asn Ser Val Glu  
50

&lt;210&gt; 5240

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5240

Cys Phe Phe Phe Ile Val Phe Gln Ser Val Ser Ile His Leu Lys Lys  
1 5 10 15

Lys Asn Arg Asn Asn Ser Arg Tyr Phe Lys Gln Lys Gly Ile Trp Trp  
20 25 30

Lys Gly Leu Thr Ile Val Met Ser Gly Arg Leu Val Glu Pro Lys Arg  
35 40 45

Arg Gly Cys Cys Pro Lys Ile Arg Lys Leu Pro Val Pro Thr Pro Thr  
50 55 60

Ala Ala Leu Leu Glu Ala  
65 70

&lt;210&gt; 5241

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5241

Thr Gly Glu Ala Ala Leu Trp Gly Leu Pro Ala Ala Gly Ala Gly Glu  
1 5 10 15

Arg His Val Asp Thr Trp Pro Leu Trp Leu Pro Pro Ala Arg Ser Ser  
20 25 30

Ala Gly Pro Ser Pro Trp Gly Trp Ala Ser Cys Ser Arg Ser Arg Thr  
35 40 45

Pro Ser Gly Leu Lys Val Gly Glu Val Trp Trp Trp Arg Trp Gly Gly  
50 55 60

Ser Glu Lys Cys Lys Arg Pro Val Gly Leu Gln Gln Lys Glu Ala Ser  
65 70 75 80

Gly Gly Trp Asp Gly Gly Gln Trp Gly Lys Ala Leu Gly Ser Ile Gly

85

95

4688

Asp Leu Arg Arg Thr Gly Cys Ala Ala Leu Arg Ile Ala Asn Cys Lys  
115 120 125

Leu Phe Arg Leu Gln Leu Gln Gln Gly Leu Phe Arg Ile Arg Val His  
130 135 140

Ser Pro  
145

&lt;210&gt; 5243

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5243

Asp Gly Pro Ala Lys Cys Arg Pro Leu Leu Leu Asn Lys Asn Ile Leu  
1 5 10 15

Lys Pro Leu Phe Leu Leu His Gly Gln Glu Ala Ala Arg Glu Ser Ala  
20 25 30

Arg Val Pro Trp Ser Glu Leu Ala Ser Pro Cys Leu Leu Cys Pro Arg  
35 40 45

Ala Ala Trp Phe Leu Val Gln Cys Ser Asp Thr Ala Cys Pro Ser Pro  
50 55 60

Thr Ser Ser Gln Gln His Leu Leu Ser Leu Ala Ala Met Ala Met Thr  
65 70 75 80

Thr Pro Glu Lys Gln Leu Gln Gly Pro Ser Gln Ile Leu Phe Cys Leu  
85 90 95

His Ala Ser Ala Gly Cys Arg Tyr  
100

&lt;210&gt; 5244

&lt;211&gt; 461

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



4689

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (241)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5244

Ile	Glu	Thr	Ser	Asn	Lys	Asn	Asp	Met	Thr	Ile	Asp	Ile	Leu	His	Ala
1				5					10				15		

Asp	Gly	Glu	Arg	Pro	Asn	Val	Leu	Glu	Asn	Leu	Asp	Asn	Ser	Lys	Glu
			20					25					30		

Lys	Thr	Val	Gly	Ser	Glu	Ala	Ala	Lys	Thr	Glu	Asp	Thr	Val	Leu	Cys
		35					40					45			

Ser	Ser	Asp	Thr	Asp	Glu	Glu	Cys	Leu	Ile	Ile	Xaa	Thr	Glu	Cys	Lys
	50					55					60				

Asn	Asn	Ser	Asp	Gly	Lys	Thr	Ala	Val	Val	Gly	Ser	Asn	Leu	Ser	Ser
65					70					75					80

Arg	Pro	Ala	Ser	Pro	Asn	Ser	Ser	Ser	Gly	Gln	Ala	Ser	Val	Gly	Asn
				85					90					95	

Gln	Thr	Asn	Thr	Ala	Cys	Xaa	Pro	Glu	Glu	Ser	Cys	Val	Leu	Lys	Lys
		100						105					110		

Pro	Ile	Lys	Arg	Val	Tyr	Lys	Lys	Phe	Asp	Pro	Val	Gly	Glu	Ile	Leu
		115					120					125			

Lys	Met	Gln	Asp	Glu	Leu	Xaa	Lys	Pro	Ile	Ser	Arg	Lys	Val	Pro	Glu
	130					135					140				

Leu	Pro	Leu	Met	Asn	Leu	Glu	Asn	Ser	Lys	Gln	Pro	Ser	Val	Ser	Glu
145					150					155					160

Gln	Leu	Ser	Gly	Pro	Ser	Asp	Ser	Ser	Ser	Trp	Pro	Lys	Ser	Gly	Trp
				165					170					175	

Pro	Ser	Ala	Phe	Gln	Lys	Pro	Lys	Gly	Arg	Leu	Pro	Tyr	Glu	Leu	Gln
				180				185					190		

## 4690

Asp Tyr Val Glu Asp Thr Ser Glu Tyr Leu Ala Pro Gln Glu Gly Asn  
 195 200 205  
 Phe Val Tyr Lys Leu Phe Ser Leu Gln Asp Leu Leu Leu Val Arg  
 210 215 220  
 Cys Ser Val Gln Arg Ile Glu Thr Arg Pro Arg Ser Lys Lys Arg Lys  
 225 230 235 240  
 Xaa Ile Arg Arg Gln Phe Pro Val Tyr Val Leu Pro Lys Val Glu Tyr  
 245 250 255  
 Gln Ala Cys Tyr Gly Val Glu Ala Leu Thr Glu Ser Glu Leu Cys Arg  
 260 265 270  
 Leu Trp Thr Glu Ser Leu Leu His Ser Asn Ser Ser Phe Tyr Val Gly  
 275 280 285  
 His Ile Asp Ala Phe Thr Ser Lys Leu Phe Leu Leu Glu Glu Ile Thr  
 290 295 300  
 Ser Glu Glu Leu Lys Glu Lys Leu Ser Ala Leu Lys Ile Ser Asn Leu  
 305 310 315 320  
 Phe Asn Ile Leu Gln His Ile Leu Lys Lys Leu Ser Ser Leu Gln Glu  
 325 330 335  
 Gly Ser Tyr Leu Leu Ser His Ala Ala Glu Asp Ser Ser Leu Leu Ile  
 340 345 350  
 Tyr Lys Ala Ser Asp Gly Lys Val Thr Arg Thr Ala Tyr Asn Leu Tyr  
 355 360 365  
 Lys Thr His Cys Gly Leu Pro Gly Val Pro Ser Ser Leu Ser Val Pro  
 370 375 380  
 Trp Val Pro Leu Asp Pro Ser Leu Leu Leu Pro Tyr His Ile His His  
 385 390 395 400  
 Gly Arg Ile Pro Cys Thr Phe Pro Pro Lys Ser Leu Asp Thr Thr Thr  
 405 410 415  
 Gln Gln Lys Ile Gly Gly Thr Arg Met Pro Thr Arg Ser His Arg Asn  
 420 425 430  
 Pro Val Ser Met Glu Thr Lys Ser Ser Cys Leu Pro Ala Gln Gln Val  
 435 440 445  
 Glu Thr Glu Gly Val Ala Pro His Lys Arg Lys Ile Thr  
 450 455 460

4691

<210> 5245  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 5245

Leu	Tyr	Ser	Pro	Phe	Gln	Phe	Phe	Leu	Pro	Leu	Phe	Leu	Phe	Leu	Ser
1				5					10					15	
Cys	Ser	Pro	Leu	Ser	Ala	Leu	Gln	Asp	Phe	Pro	Ala	Thr	Trp	Val	Leu
			20					25					30		
Val	Leu	Lys	Leu	Pro	Tyr	Thr	Phe	Thr	Val	Phe	Phe	Leu	Leu	Pro	Phe
		35					40					45			
Phe	Leu	Ile	Phe	Ile	Ser	Phe	Leu	Asn	Phe	Leu	Ser	Leu	Ser	Ser	Leu
	50					55					60				
Pro	Phe	Leu	Leu	Ser	Phe	Leu	Phe	Val	His	Val	Ile	Ser	Ser	Pro	Cys
	65				70					75					80
Leu	Pro	Pro	Leu	Thr	Phe	Leu	Tyr	Phe	Leu	Ser	Leu	Pro	Pro	Tyr	Tyr
				85					90					95	
Ser	Phe	Leu	Phe	Leu	Val	Leu	Gln	Phe	Asn	Tyr	Phe	Lys	His	Ile	Thr
			100					105					110		
His	Lys	Ala	Cys	His	Ser	Leu	Asp	Phe							
		115					120								

<210> 5246  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

<400> 5246

Thr	Leu	His	Thr	Ala	His	Pro	Ser	Pro	Val	Leu	Thr	Leu	Cys	Ser	Tyr
1				5					10					15	
His	Ser	Leu	Ala	Ala	Cys	His	Ala	Val	Gly	Leu	Gln	Ile	Cys	Thr	His
			20					25					30		
Lys	Phe	Leu	Arg	Lys	Ser	Leu	His	Glu	His	His	Leu	Ala	Ile	Phe	Cys
		35					40					45			
Thr	Asp	Gln	Thr	Arg	Asp	Leu	Asn	Val	Phe	Gln	His	Lys	Arg	Ile	Thr

4692

50

55

60

Ser Glu Trp Trp Ser Val Arg Ile Leu Ala Lys Val Met Val Ile  
65 70 75

&lt;210&gt; 5247

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5247

Leu Glu Glu Thr Leu Phe Leu Gln Gly Thr Lys Gln Leu Tyr Phe Ser  
1 5 10 15

Thr Asp Met His Tyr Phe His Cys Glu Phe Thr Phe Leu Leu His Val  
20 25 30

Gln Met Ser Leu Phe Val Phe Phe Phe Cys Asn Ile Asn Cys Asn Asp  
35 40 45

Val Leu Pro Gly Ile His Glu Asn Ile Ile Lys Thr His Phe  
50 55 60

&lt;210&gt; 5248

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5248

Pro Gly Glu Pro Lys Pro Thr Pro Arg Gly Lys Pro Gly Gln Thr Gly  
1 5 10 15

## 4693

Gly Pro Pro Ser Trp Tyr Xaa Pro Xaa Lys Leu Ile Ala Leu Xaa Gly  
                   20                  25                  30

Gly Gly Glu Lys Thr Pro Thr His Leu Val Arg Glu Val Phe Cys Leu  
           35                  40                  45

Tyr Cys Gly Val Arg Ala Glu Glu Lys Ser Leu Phe Phe Pro Leu Arg  
       50                  55                  60

Leu Cys Phe Lys Glu Gln Gly Arg Gly Lys Phe Cys Gly Phe  
   65                  70                  75

<210> 5249

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5249

Lys Leu Thr Lys Cys Pro Val Arg Trp Leu Arg Pro Ala Ile Pro Ala  
   1                  5                  10                  15

Leu Trp Glu Ala Glu Val Gly Gly Ser Leu Glu Ala Arg Ser Leu Arg  
           20                  25                  30

Thr Ala Trp Pro Thr Trp Arg Asn Pro Val Ser Thr Ile Xaa Thr Lys  
           35                  40                  45

Phe Asn Gln Ala Trp Trp Trp Ala Pro Val Val Pro Ala Tyr Leu Gly  
       50                  55                  60

Asp Leu Ser His Glu Glu Ser Leu Xaa Pro Ser Trp Val Gly Xaa Leu  
   65                  70                  75                  80

4694

&lt;210&gt; 5250

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5250

Pro Pro Gly Ser Asn Lys Pro Pro Ala Ser Ala Tyr Gln Val Ala Glu

1

5

10

15

Thr Thr Gly Thr Tyr His Arg Ala Cys Leu Ile Phe Lys Ile Phe Tyr

20

25

30

Lys Asp Glu Val Ser Leu Cys Cys Pro Gly Trp Ser Gln Thr Pro Asn

35

40

45

Leu Lys Gln Ser Ala His Val Gly Leu Pro Lys Cys

50

55

60

&lt;210&gt; 5251

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5251

Val Tyr Gly Asn Tyr Leu Ile Ile Leu Lys Arg Thr His Phe Ser Cys

1

5

10

15

Lys Tyr Val Thr Ser Glu Phe Lys Lys Ile Thr Leu Asn Thr Leu Ile

20

25

30

Phe Ala Ala Phe Phe Ser Val Tyr Ile Thr Cys Leu Leu Ser Glu Trp

35

40

45

Glu Tyr Met Cys Ala Ser Gln His Leu Leu Leu Lys Cys Val Ile Phe

50

55

60

Ile Cys Gln Thr Gly

65

&lt;210&gt; 5252

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4695

&lt;400&gt; 5252

Arg His Lys Asp Thr Phe Arg Ile Val Lys Thr Leu Ser Ile Glu Lys  
 1 5 10 15

Phe Leu Asn Glu Thr Val Ser Lys Lys Ser Phe Ala Ser Arg Phe Leu  
 20 25 30

Arg Gly Ala Ile Lys Lys Arg Thr Leu Pro Val Val Thr Ala Ala Ala  
 35 40 45

Ile Ala Pro Leu Tyr Cys  
 50

&lt;210&gt; 5253

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5253

Phe His Leu Gln Gln Leu Leu Glu Arg Lys Pro Asp Asn Tyr Met Thr  
 1 5 10 15

Leu Ser Arg Leu Ile Asp Leu Leu Arg Arg Cys Gly Lys Leu Glu Asp  
 20 25 30

Val Pro Arg Phe Phe Ser Met Ala Glu Lys Arg Asn Ser Arg Ala Lys  
 35 40 45

Leu Glu Pro Gly Phe Gln Tyr Cys Lys Gly Leu Tyr Leu Trp Tyr Thr  
 50 55 60

Gly Xaa Xaa Asn Asp Ala Leu Arg His Phe Asn Lys Ala Arg Lys Asp  
 65 70 75 80

Arg Asp Trp Gly Gln Asn Ala Leu Tyr Asn Met Ile Glu Asn Leu Phe  
 85 90 95

Glu Ser Arg

4696

<210> 5254  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (77)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5254  
 Ser Val Leu Trp Asn Ala Met Ile His Pro Leu Cys Asn Met Thr Leu  
   1                  5                  10                  15  
 Lys Gly Val Val Trp Tyr Gln Gly Glu Ser Asn Ile Asn Tyr Asn Thr  
                   20                  25                  30  
 Asp Leu Tyr Asn Cys Thr Phe Pro Ala Leu Ile Glu Asp Trp Arg Glu  
           35                  40                  45  
 Thr Phe His Arg Gly Ser Gln Gly Gln Thr Glu Arg Phe Phe Pro Phe  
   50                  55                  60  
 Gly Leu Val Gln Leu Ser Ser Asp Leu Ser Lys Lys Xaa Ser Asp Asp  
   65                  70                  75                  80  
 Gly Phe Pro Gln Ile Arg Trp His Gln Thr Ala Asp Phe Gly Tyr Val  
                   85                  90                  95  
 Pro Asn Pro Lys Met Pro Asn Thr Phe Met Ala Val Ala Met Asp Leu  
           100                  105                  110  
 Cys Asp Arg Asp Ser Pro Phe Gly Ser Ile His Pro Arg Asp Lys Gln  
           115                  120                  125  
 Asn Cys Gly Leu Ser Ala Ala Phe Gly Gly Pro Cys Ser Gly Leu Trp  
   130                  135                  140

<210> 5255  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens



4697

<220>  
 <221> SITE  
 <222> (35)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (36)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5255  
 Val Leu Pro Leu Leu Pro Lys Val Leu Gly Leu Arg His His Thr Gln  
 1 5 10 15  
 Pro Lys Leu Lys Ala Ile Phe Ser Asn Ser His Gln Cys Gly Tyr Cys  
 20 25 30  
 Tyr Lys Xaa Xaa Trp Phe Leu Gly His Ile Trp Tyr Gln Asn Val Tyr  
 35 40 45  
 Val Tyr Pro Tyr Lys Tyr Gly Met  
 50 55

<210> 5256  
 <211> 434  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (347)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5256  
 Asn Leu Asn Met Glu Ala Thr Gly Thr Asp Glu Val Asp Lys Leu Lys  
 1 5 10 15  
 Thr Lys Phe Ile Ser Ala Trp Asn Asn Met Lys Tyr Ser Trp Val Leu  
 20 25 30  
 Lys Thr Lys Thr Tyr Phe Ser Arg Asn Ser Pro Val Leu Leu Leu Gly  
 35 40 45  
 Lys Cys Tyr His Phe Lys Tyr Glu Asp Glu Asp Lys Thr Leu Pro Ala  
 50 55 60  
 Glu Ser Gly Cys Thr Ile Glu Asp His Val Ile Ala Gly Asn Val Glu  
 65 70 75 80

4698

Glu	Phe	Arg	Lys	Asp	Phe	Ile	Ser	Arg	Ile	Trp	Leu	Thr	Tyr	Arg	Glu	85	90	95	
Glu	Phe	Pro	Gln	Ile	Glu	Gly	Ser	Ala	Leu	Thr	Thr	Asp	Cys	Gly	Trp	100	105	110	
Gly	Cys	Thr	Leu	Arg	Thr	Gly	Gln	Met	Leu	Leu	Ala	Gln	Gly	Leu	Ile	115	120	125	
Leu	His	Phe	Leu	Gly	Arg	Ala	Trp	Thr	Trp	Pro	Asp	Ala	Leu	Asn	Ile	130	135	140	
Glu	Asn	Ser	Asp	Ser	Glu	Ser	Trp	Thr	Ser	His	Thr	Val	Lys	Lys	Phe	145	150	155	160
Thr	Ala	Ser	Phe	Glu	Ala	Ser	Leu	Ser	Gly	Glu	Arg	Glu	Phe	Lys	Thr	165	170	175	
Pro	Thr	Ile	Ser	Leu	Lys	Glu	Thr	Ile	Gly	Lys	Tyr	Ser	Asp	Asp	His	180	185	190	
Glu	Met	Arg	Asn	Glu	Val	Tyr	His	Arg	Lys	Ile	Ile	Ser	Trp	Phe	Gly	195	200	205	
Asp	Ser	Pro	Leu	Ala	Leu	Phe	Gly	Leu	His	Gln	Leu	Ile	Glu	Tyr	Gly	210	215	220	
Lys	Lys	Ser	Gly	Lys	Lys	Ala	Gly	Asp	Trp	Tyr	Gly	Pro	Ala	Val	Val	225	230	235	240
Ala	His	Ile	Leu	Arg	Lys	Ala	Val	Glu	Glu	Ala	Arg	His	Pro	Asp	Leu	245	250	255	
Gln	Gly	Ile	Thr	Ile	Tyr	Val	Ala	Gln	Asp	Cys	Thr	Val	Pro	Val	Arg	260	265	270	
Leu	Gly	Gly	Glu	Arg	Thr	Asn	Thr	Asp	Tyr	Leu	Glu	Phe	Val	Lys	Gly	275	280	285	
Ile	Leu	Ser	Leu	Glu	Tyr	Cys	Val	Gly	Ile	Ile	Gly	Gly	Lys	Pro	Lys	290	295	300	
Gln	Ser	Tyr	Tyr	Phe	Ala	Gly	Phe	Gln	Asp	Asp	Ser	Leu	Ile	Tyr	Met	305	310	315	320
Asp	Pro	His	Tyr	Cys	Gln	Ser	Phe	Val	Asp	Val	Ser	Ile	Lys	Asp	Phe	325	330	335	
Pro	Leu	Glu	Thr	Phe	His	Cys	Pro	Ser	Pro	Xaa	Lys	Met	Ser	Phe	Arg	340	345	350	

## 4699

Lys Met Asp Pro Ser Cys Thr Ile Gly Phe Tyr Cys Arg Asn Val Gln  
 355 360 365

Asp Phe Lys Arg Ala Ser Glu Glu Ile Thr Lys Met Leu Lys Phe Ser  
 370 375 380

Ser Lys Glu Lys Tyr Pro Leu Phe Thr Phe Val Asn Gly His Ser Arg  
 385 390 395 400

Asp Tyr Asp Phe Thr Ser Thr Thr Thr Asn Glu Glu Asp Leu Phe Ser  
 405 410 415

Glu Asp Glu Lys Lys Gln Leu Lys Arg Phe Ser Thr Glu Glu Phe Val  
 420 425 430

Leu Leu

<210> 5257

<211> 68

<212> PRT

<213> Homo sapiens

<400> 5257

Tyr Ile Ser Cys Ile Phe Tyr Asp Phe Ser Ile Lys His Ser Gly Val  
 1 5 10 15

Leu Ala Phe Pro Gly Lys Gly Lys Leu Val Cys Ala Leu Val Lys Tyr  
 20 25 30

Leu Asn Ser Asn Val Pro Tyr Ser Ala Cys Ile His Phe Val Lys Ser  
 35 40 45

Phe Val Val Leu Leu Glu Gln Phe Ser Lys Ala Asp Phe Met Pro Tyr  
 50 55 60

Leu Ile Glu Ile  
 65

<210> 5258

<211> 76

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

## 4700

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5258

Ile	Ala	Gly	Arg	Gly	Ile	Met	Ala	Cys	Gln	His	Ser	Leu	Cys	Pro	Xaa
1				5					10					15	

Asn	Leu	Arg	Pro	Arg	Met	Arg	Ser	Cys	Gln	His	Asn	Ile	His	Pro	Phe
		20						25					30		

Glu	Gln	Met	Glu	Ser	Gly	Thr	Leu	Thr	Gln	Pro	Ser	Val	Leu	Asn	Asn
		35					40						45		

Thr	Ala	Ile	Ile	Ala	Thr	Cys	Ser	Val	Val	Asn	Val	Asn	Pro	Gln	Ser
	50					55					60				

Gln	Leu	Asn	Tyr	Phe	Arg	Pro	Asn	Ile	Leu	Phe	Leu
65					70					75	

&lt;210&gt; 5259

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (83)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5259

Gln	Gly	Phe	Gly	Arg	Pro	Ser	Val	Tyr	His	Ala	Ala	Ile	Val	Xaa	Phe
1				5					10					15	

Leu	Glu	Phe	Phe	Ala	Trp	Gly	Leu	Leu	Thr	Thr	Pro	Met	Leu	Thr	Val
		20					25						30		

Leu	His	Glu	Thr	Phe	Ser	Gln	His	Thr	Phe	Leu	Met	Asn	Gly	Leu	Ile
	35						40					45			

## 4701

Gln Gly Val Lys Gly Leu Leu Ser Phe Leu Ser Ala Pro Leu Ile Gly  
           50                          55                          60

Ala Leu Ser Asp Val Trp Gly Arg Lys Pro Phe Leu Leu Gly Thr Val  
      65                          70                          75                          80

Phe Phe Xaa Xaa Phe Pro Ile Pro Leu Met Arg Ile Ser Pro Cys Phe  
                           85                          90                          95

Leu Lys Lys Lys Thr His Gln Trp Thr  
                           100                          105

<210> 5260  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 5260  
 Leu Arg Tyr Ser Leu Ile Phe Tyr Ile Ala Ala Leu Phe Phe Leu Phe  
   1                          5                          10                          15

Cys Ser Ile Ser Glu Ile Ser His Val Tyr Thr Leu Asn Ile Asn Ile  
                           20                          25                          30

Arg Asn His Ala Ile Ile Ser Thr Met Tyr Leu Val Val Ser Tyr Ile  
                           35                          40                          45

Cys Ile Thr Leu Leu His Phe Ala Asn  
      50                          55

<210> 5261  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (15)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5261  
 Leu Ile Tyr Lys Tyr Asn Tyr Thr Lys Leu Gln Asn Ile Val Xaa Met  
   1                          5                          10                          15

Lys Thr Lys Asn Leu Val Pro Asn Ile  
                           20                          25

4702

&lt;210&gt; 5262

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5262

Ser Asp Lys Ala Leu Ala Ser Asp Pro Cys Gln Asn Ser Ile Asn Gly  
1 5 10 15

Cys Leu Glu Val Asp Val His Ile Tyr Ser Glu Met Phe Cys His Leu  
20 25 30

Arg Pro Met Arg Arg Leu Cys Leu Glu Lys Ile Phe Pro His Trp Phe  
35 40 45

Pro Phe Ser Arg Ala Leu Ser Gly Ala Glu Ala Val Asn Ala Leu Arg  
50 55 60

Pro Phe Tyr Phe Ala Val His Pro Asp Phe Phe Gly Gln His Pro Val  
65 70 75 80

Glu Arg Asp Asp Thr Trp Lys Ser Phe Gln Cys Pro Ser Asp Phe Ser  
85 90 95

Leu

&lt;210&gt; 5263

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4703

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5263

Ala	Ser	Cys	Arg	Thr	Xaa	Ser	Arg	Met	Ala	Ile	Phe	Glu	Leu	Val	Ser
1					5				10					15	

Lys	Xaa	Arg	Xaa	Leu	Tyr	Leu	Xaa	Gln	Lys	Ile	Leu	Cys	Glu	Leu	Ser
			20					25					30		

Gly	His	Xaa	Asp	Leu	Phe	Val	Asp	Val	Asn	Lys	His	Leu	Phe	Asp	Gly
		35					40					45			

Glu	Val	Cys	Ala	Ile	Asn	His	Phe	Val	Lys	Leu	Leu	Lys	Asp	Ile	Ile
	50					55					60				

Ile	Cys	Phe	Leu	Asn	Ile	Arg	Ala	Lys	Asn	Val	Ala	Gln	Asn	Pro	Leu
65					70					75					80

Lys	His	His	Ser	Glu	Arg	Thr	Asp	Met	Lys	Thr	Leu	Ser	Arg	Lys	His
				85					90					95	

Trp	Ser	Ser	Val	Gln	Asp	Tyr	Lys	Cys	Ser	Ser	Phe	Ala	Asn	Thr	Ser
			100					105					110		

Ser	Lys	Phe	Arg	His	Leu	Leu	Ser	Asn	Asp	Gly	Tyr	Pro	Phe	Lys	
		115					120					125			

&lt;210&gt; 5264

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5264

Asp	Ser	Phe	Ile	Leu	His	Leu	Phe	Ile	Gln	Leu	Ile	Phe	Val	Glu	His
1					5				10					15	

Leu	His	Val	Pro	Asp	Ile	Ile	Lys	Cys	Trp	Val	Tyr	Gly	Asn	Glu	Gln
			20					25					30		

Asn	Arg	Gln	Gly	Pro	Cys	Pro	Phe	Arg	Gly	Asp	Arg				
		35						40							

4704

<210> 5265  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (68)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (81)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (110)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5265  
 Leu Lys Ile Asp Thr Asn Arg Ile Arg Thr Glu Asn Gly Ser Ile Leu  
     1                    5                    10                    15  
 Pro Ser Val Val Pro Gln Glu His Asn Thr Leu Pro Val Ser Gln Ala  
                     20                    25                    30  
 Pro Ser Lys Pro Asn Leu Thr Ser Glu His Thr Ser Tyr Gly Leu Ile  
                     35                    40                    45  
 Leu Thr Lys Pro Tyr Val Arg Pro Leu Pro Pro Ser Tyr Leu Asp Glu  
                     50                    55                    60  
 Arg Tyr Leu Xaa Met Pro Lys Arg Arg Lys Phe Leu Thr Asp Arg Val  
                     65                    70                    75                    80  
 Xaa Ala Cys Ser Asp Gln Asp Asn Val Tyr Lys Lys Ser Val Lys Arg  
                     85                    90                    95  
 Leu Arg Cys Gly Lys Cys Leu Thr Thr Tyr Cys Asn Ala Xaa Ala Leu  
                     100                    105                    110  
 Glu Ala His Leu Ala Gln Lys Lys Cys Gln Thr Leu Phe Gly Ile  
                     115                    120                    125

<210> 5266



## 4705

&lt;211&gt; 225

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5266

Leu Pro Gly Pro Gly Ala Cys Pro Glu Gly Val Trp Thr Leu Asn Ser  
 1 5 10 15

Ala Pro Thr Gln Gly Pro Thr Ala Ala Pro Gly Ala Cys His Pro Gly  
 20 25 30

Leu Leu Gly Arg Gly Gln Gly Leu Xaa Leu Gly Leu Pro Ser Thr Pro  
 35 40 45

Gly Thr Pro Thr Pro Thr Pro His Thr Ser Leu Gly Ser Pro Val Ser  
 50 55 60

Ser Asp Pro Val His Met Ser Pro Leu Glu Pro Arg Gly Gly Gln Gly  
 65 70 75 80

Asp Gly Leu Ala Leu Val Leu Ile Leu Ala Phe Cys Val Ala Gly Ala  
 85 90 95

Ala Ala Leu Ser Val Ala Ser Leu Cys Trp Cys Arg Leu Gln Arg Glu  
 100 105 110

Ile Arg Leu Thr Gln Lys Ala Asp Tyr Ala Thr Ala Lys Ala Pro Gly  
 115 120 125

Ser Pro Ala Ala Pro Arg Ile Ser Pro Gly Asp Gln Arg Leu Ala Gln  
 130 135 140

Ser Ala Glu Met Tyr His Tyr Gln His Gln Arg Gln Gln Met Leu Cys  
 145 150 155 160

Leu Glu Arg His Lys Glu Pro Pro Lys Glu Leu Asp Thr Ala Ser Ser  
 165 170 175

Asp Glu Glu Asn Glu Asp Gly Asp Phe Thr Val Tyr Glu Cys Pro Gly  
 180 185 190

Leu Ala Pro Thr Gly Glu Met Glu Val Arg Asn Pro Leu Phe Asp His  
 195 200 205

Ala Ala Leu Ser Ala Pro Leu Pro Ala Pro Ser Ser Pro Pro Ala Leu  
 210 215 220

4706

Pro  
225

<210> 5267  
<211> 104  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (75)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (79)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 5267  
Xaa Phe Cys Val Ala Gly Ala Ala Ala Leu Ser Val Ala Ser Leu Cys  
1 5 10 15  
Trp Cys Arg Leu Gln Arg Glu Ile Arg Leu Thr Gln Lys Ala Asp Tyr  
20 25 30  
Ala Thr Ala Lys Ala Pro Gly Ser Pro Ala Ala Pro Arg Ile Ser Pro  
35 40 45  
Gly Asp Gln Arg Leu Ala Gln Ser Ala Glu Met Tyr His Tyr Gln His  
50 55 60  
Gln Arg Gln Gln Met Leu Cys Leu Glu Arg Xaa Glu Val Gly Xaa Xaa  
65 70 75 80  
Pro Thr Ser Arg Leu Gly His Trp His Leu Glu Gly Met Gly Arg Thr  
85 90 95  
Gln Arg Ser Pro Pro Thr Gln Ala

4707

100

&lt;210&gt; 5268

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5268

Glu Pro His Leu Ser Met Cys Lys Arg Cys Ile Pro Arg Pro Val Asn  
 1 5 10 15

Gly Ser Leu Arg Lys Phe Cys Met Gln Ala Val Phe Ser Ser Arg Thr  
 20 25 30

Asn Asn Trp Glu Ile Ser Lys Lys Leu His Arg Ser Pro Ala Trp Cys  
 35 40 45

Cys Ser Ser Leu Tyr Phe Thr Leu Asn Ser Gly Trp Glu Glu Lys Gly  
 50 55 60

Asn Lys Leu Trp Leu Phe Pro Ser Gln Lys Tyr Cys Gly Thr Ser Thr  
 65 70 75 80

Phe Gln Cys Phe Ala Phe  
 85

&lt;210&gt; 5269

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5269

His Cys Glu Cys Cys Ser Asp Ile Leu Tyr Arg His Leu Thr Ala Gln  
 1 5 10 15

Asn Phe Cys Phe Ile Ser Cys Leu Thr Tyr Gln Lys Gly Arg Lys Val  
 20 25 30

Gly Met Ile Ser Lys Val Lys Lys Lys Lys Lys Lys Thr Phe Tyr  
 35 40 45

Arg Lys Leu Ile Asn Asn His Val Ile Leu Gln Phe Cys Tyr Gln Asn  
 50 55 60

Phe Pro Gln Glu Phe Ser Asn Ile Ser Ser Ala Met Trp Leu  
 65 70 75

4708

&lt;210&gt; 5270

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5270

Arg	Pro	Val	Arg	Thr	Tyr	Xaa	Ala	Lys	Leu	Leu	Ala	Phe	Gly	Ile	Pro
1				5					10					15	

Leu	Asp	Asn	Val	Gly	Phe	Lys	Pro	Leu	Glu	Thr	Ala	Val	Ile	Gly	Gln
			20					25					30		

Thr	Leu	Gly	Gln	Gly	Pro	Ala	Gly	Leu	Val	Gly	Thr	Pro	Thr
		35					40					45	

&lt;210&gt; 5271

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

Lys	Ile	Phe	Cys	Arg	Asp	Lys	Leu	Ser	Leu	Cys	Phe	Pro	Gly	Trp	Ser
1				5					10					15	

Arg	Thr	Ser	Gly	Leu	Lys	Arg	Phe	Phe	Cys	Leu	Ser	Leu	Gln	Asn	Tyr
			20					25					30		

Trp	Asp	Tyr	Ser	Met	Ser	His	His	Ala	Gln	Leu	Tyr	Ser	Leu	Leu	Ile
		35					40					45			

Tyr

&lt;210&gt; 5272

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

Lys Glu Ala Val Phe Pro Arg Lys Thr His Gln Pro Gly Leu Arg Lys

## 4709

1	5	10	15
Lys Met Gly Pro Pro Ser Glu Gly Met Trp Trp Trp Lys His Ser Thr	20	25	30
Gly Pro Gly Phe Gly Ala Ser Phe Pro Pro Pro Gln Pro Met Leu Thr	35	40	45
Leu Pro Gly Lys Ala Pro Gly Ser Pro Gln Gly Arg Arg Lys Lys Arg	50	55	60
Gly Leu Cys Ser	65		

&lt;210&gt; 5273

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5273

Arg Thr Lys Arg Thr His Ala Gly Gly Arg Ser Arg Xaa Val Asp Pro
1 5 10 15

Arg Ala Ala Glu Phe Gly Thr Ala Arg Leu Gly Ser Leu Cys Lys Thr
20 25 30

Ser Pro Phe Leu Glu Met Met Met Pro Ser Lys Pro Gly Pro Gly Pro
35 40 45

Asp Leu Gln Ala His Thr Trp Pro Val Ala Leu Arg Ser Pro Gly
50 55 60

&lt;210&gt; 5274

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

4710

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (139)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (141)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (256)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5274

Cys	Ser	Ile	Asn	Gly	Thr	Leu	Tyr	Gln	Pro	Gly	Ala	Val	Val	Ser	Ser
1				5				10						15	

Ser	Leu	Cys	Glu	Thr	Cys	Arg	Cys	Glu	Leu	Pro	Gly	Gly	Pro	Pro	Ser
			20					25					30		

Asp	Ala	Phe	Val	Val	Ser	Cys	Glu	Thr	Gln	Ile	Cys	Asn	Thr	His	Cys
		35					40					45			

Pro	Val	Gly	Phe	Glu	Tyr	Gln	Glu	Gln	Ser	Gly	Gln	Cys	Cys	Gly	Thr
	50					55					60				

Cys	Val	Gln	Val	Ala	Cys	Val	Thr	Asn	Thr	Ser	Lys	Ser	Pro	Ala	His
65					70					75					80

Leu	Phe	Tyr	Pro	Gly	Glu	Thr	Trp	Ser	Asp	Ala	Gly	Asn	His	Cys	Val
				85					90					95	

Thr	His	Gln	Cys	Glu	Lys	His	Gln	Asp	Gly	Leu	Val	Val	Val	Thr	Thr
		100						105					110		

Lys	Lys	Ala	Cys	Pro	Pro	Leu	Xaa	Cys	Ser	Leu	Asp	Glu	Ala	Arg	Met
		115					120					125			

Ser	Lys	Asp	Gly	Cys	Cys	Arg	Phe	Cys	Pro	Xaa	Pro	Xaa	Pro	Pro	Tyr
	130					135					140				

Gln	Asn	Gln	Ser	Thr	Cys	Ala	Val	Tyr	His	Arg	Ser	Leu	Ile	Ile	Gln
145					150					155					160

Gln	Gln	Gly	Cys	Ser	Ser	Ser	Glu	Pro	Val	Arg	Leu	Ala	Tyr	Cys	Arg
			165					170						175	

Gly	Asn	Cys	Gly	Asp	Ser	Ser	Ser	Met	Tyr	Ser	Leu	Glu	Gly	Asn	Thr
			180					185					190		

## 4711

Val Glu His Arg Cys Gln Cys Cys Gln Glu Leu Arg Thr Ser Leu Arg  
 195 200 205

Asn Val Thr Leu His Cys Thr Asp Gly Ser Ser Arg Ala Phe Ser Tyr  
 210 215 220

Thr Glu Val Glu Glu Cys Gly Cys Met Gly Arg Arg Cys Pro Ala Pro  
 225 230 235 240

Gly Asp Thr Gln His Ser Glu Glu Ala Glu Pro Glu Pro Ser Gln Xaa  
 245 250 255

Ala

<210> 5275

<211> 58

<212> PRT

<213> Homo sapiens

<400> 5275

Asn Phe Lys Ser Ile His Phe Thr His Leu Phe Cys Leu Phe Thr Lys  
 1 5 10 15

Leu Phe Leu Lys Arg Ala Leu Cys His Gln Asn Met Leu Asp Leu Ile  
 20 25 30

Ile Leu Arg Ser Leu Leu Ser Lys Tyr Leu Val Tyr Ile Phe Ser Leu  
 35 40 45

Ala Asn Leu Cys Val Tyr Ile His Ser Ile  
 50 55

<210> 5276

<211> 205

<212> PRT

<213> Homo sapiens

<400> 5276

Asn Ser Ala Glu Ala Val Glu Arg Asn Leu Val Arg Val Ala Glu Val  
 1 5 10 15

Trp Leu Asp Glu Tyr Lys Glu Leu Phe Tyr Gly His Gly Asp His Leu  
 20 25 30

Ile Asp Gln Gly Leu Asp Val Gly Asn Leu Thr Gln Gln Arg Glu Leu

## 4712

35	40	45
Arg Lys Lys Leu Lys Cys Lys Ser Phe Lys Trp Tyr Leu Glu Asn Val		
50	55	60
Phe Pro Asp Leu Arg Ala Pro Ile Val Arg Ala Ser Gly Val Leu Ile		
65	70	75 80
Asn Val Ala Leu Gly Lys Cys Ile Ser Ile Glu Asn Thr Thr Val Ile		
85	90	95
Leu Glu Asp Cys Asp Gly Ser Lys Glu Leu Gln Gln Phe Asn Tyr Thr		
100	105	110
Trp Leu Arg Leu Ile Lys Cys Gly Glu Trp Cys Ile Ala Pro Ile Pro		
115	120	125
Asp Lys Gly Ala Val Arg Leu His Pro Cys Asp Asn Arg Asn Lys Gly		
130	135	140
Leu Lys Trp Leu His Lys Ser Thr Ser Val Phe His Pro Glu Leu Val		
145	150	155 160
Asn His Ile Val Phe Glu Asn Asn Gln Gln Leu Leu Cys Leu Glu Gly		
165	170	175
Asn Phe Ser Gln Lys Ile Leu Lys Val Ala Ala Cys Asp Pro Val Lys		
180	185	190
Pro Tyr Gln Lys Trp Lys Phe Glu Lys Tyr Tyr Glu Ala		
195	200	205

&lt;210&gt; 5277

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (170)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



## 4713

&lt;222&gt; (177)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (183)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (188)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5277

Pro	Leu	Ala	Met	Asp	Ser	Gln	Lys	Glu	Ala	Leu	Gln	Arg	Ile	Ile	Ser
1				5					10					15	

Thr	Leu	Ala	Asn	Lys	Asn	Asp	Glu	Ile	Gln	Asn	Phe	Ile	Asp	Thr	Leu
			20					25					30		

His	His	Thr	Leu	Lys	Gly	Val	Gln	Glu	Asn	Ser	Ser	Asn	Ile	Leu	Ser
		35					40					45			

Glu	Leu	Asp	Glu	Glu	Phe	Asp	Ser	Leu	Tyr	Ser	Ile	Leu	Asp	Glu	Val
	50					55					60				

Lys	Glu	Ser	Met	Ile	Asn	Cys	Ile	Lys	Gln	Glu	Gln	Ala	Arg	Lys	Ser
65					70					75				80	

Gln	Glu	Leu	Gln	Ser	Gln	Ile	Ser	Gln	Cys	Asn	Asn	Ala	Leu	Glu	Asn
				85					90					95	

Ser	Glu	Glu	Leu	Leu	Glu	Phe	Ala	Thr	Arg	Ser	Leu	Asp	Ile	Lys	Glu
			100					105					110		

Pro	Glu	Glu	Phe	Ser	Lys	Ala	Ala	Arg	Gln	Ile	Lys	Asp	Arg	Val	Thr
			115				120					125			

Met	Ala	Ser	Ala	Phe	Arg	Leu	Ser	Leu	Lys	Pro	Lys	Val	Ser	Asp	Asn
	130					135					140				

Met	Thr	His	Leu	Met	Val	Asp	Phe	Ser	Gln	Glu	Arg	Gln	Met	Leu	Gln
145					150					155				160	

Thr	Leu	Lys	Phe	Phe	Ala	Ser	Pro	Gln	Xaa	Ser	Xaa	Ile	Asp	Pro	Val
			165					170					175		

Xaa	Ile	Val	Trp	Val	Gly	Xaa	Ile	Thr	Ser	Cys	Xaa
		180					185				

4714

&lt;210&gt; 5278

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5278

Phe	Lys	Ala	Ile	Asp	Asp	Leu	Tyr	Val	Gln	Ile	Lys	Glu	Lys	His	Val
1				5					10					15	

Trp	Glu	Lys	Asp	Cys	His	Phe	Tyr	Val	Asn	Xaa	Lys	Val	Leu	Ser	Glu
			20					25					30		

Leu	Tyr	Leu	Lys	Lys	Arg	Arg	Phe	Tyr	Lys	Ser	Lys	Glu	Ser	Leu	Asn
		35					40					45			

Thr	Met	Asn	Lys	Gly
		50		

&lt;210&gt; 5279

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

Ile	Ile	Tyr	Ile	Phe	Leu	Lys	Pro	Glu	Leu	Lys	Met	Leu	Gln	Ala	Thr
1				5					10					15	

Gly	Tyr	Ser	Phe	Ile	Ser	Gly	Ser	Leu	Thr	Val	Val	Ser	Leu	Gly	Gln
			20					25					30		

Ala	Ile	Ser	Leu	Lys	Glu	Lys	Leu	Ile	Met	Tyr	Val	Gly	Cys	Gln	Asp
			35					40					45		

His	Cys	Leu	Glu	Ser	Lys	Cys	Asp	Phe	Tyr	Phe
		50				55				

&lt;210&gt; 5280

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4715

&lt;400&gt; 5280

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Asn Leu Ser Val Ala Leu Cys Leu Cys Ser Pro Gln Arg Lys Val Thr
 1              5              10              15

Arg Arg Gly Val Gln Phe Pro Arg Pro Gly Pro Tyr Arg Pro Pro Thr
              20              25              30

Gly Ala Pro Leu Cys Cys Tyr Ser Phe Cys Gln Leu Glu Ala Asp Gly
              35              40              45

Asp Gln Ala Leu Glu Lys Ala Arg Pro Glu Asp Gly Arg Phe Leu Ser
              50              55              60

Gly Gly Glu Leu Cys Leu Thr Asp Leu Asn Ile His Ser Val Leu Leu
 65              70              75              80

Cys Glu Asn Lys

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&lt;210&gt; 5281

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5281

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Ser Lys Gly Ile Leu Val Phe Asn Leu Asp Arg Leu Arg Cys Gln Glu
 1              5              10              15

Lys Leu Gln Ser Gln Val Ser Arg Gln Pro Pro Gly Trp Ser Leu Ala
              20              25              30

Pro Pro Pro Pro Pro Leu Pro Thr Phe Ser Asn Val Leu His Ala Gly
              35              40              45

Ser Trp Gly Val Trp Gly Lys Gly Leu Pro Ala Ser Phe Arg Arg Leu
              50              55              60

Arg Phe Gly Gly Lys Ile Asn Leu Gly Asp His Pro Gly Arg Gly Ala
 65              70              75              80

Ser Val Asp Arg Trp Glu Glu Lys Lys Thr Ser Tyr Leu Gly Gly Gly
              85              90              95

Thr Ser Arg Phe Leu Ile Leu Ser Phe Phe Val Ala Pro Pro His Cys
              100              105              110

Pro Phe

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4716

&lt;210&gt; 5282

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 5282

Leu Lys Leu Asn Thr Glu Arg Asp Phe Leu Ser Cys Lys Lys Phe Ile  
1 5 10 15

Asn Ala Lys Gln Lys Glu Asn Ile Tyr Phe Leu Ser Leu Gln Glu Lys  
20 25 30

Gln Thr Lys His Tyr Ser Phe Ile Ala Ala Ile Leu Leu Thr Lys Gln  
35 40 45

Xaa Val His Asn Ile Lys Asn Leu Thr  
50 55

&lt;210&gt; 5283

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5283

Leu Thr Lys Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala  
1 5 10 15

Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Asp Phe  
20 25 30

Leu Cys Met Cys Phe Phe Pro Asp Ser Tyr Ile Ile Gly Tyr Leu Pro  
35 40 45

Thr Thr Pro Tyr Thr Tyr Tyr Phe Gln Asn Leu Ser Arg  
50 55 60

&lt;210&gt; 5284

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

4717

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (74)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (77)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (78)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (83)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (86)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (89)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 5284  
 Lys Thr Tyr Lys Ile Gln Arg Ser Tyr Arg Ser Cys Ala Leu Tyr Asn  
 1 5 10 15  
 Val Ile Ile Val Thr Lys Gly Leu Ser Thr Trp Lys Phe Leu Asn Asp  
 20 25 30  
 Leu Leu Asn Asn Ser Phe Lys Gly Glu Ile Lys Ile Asn Cys Lys Leu  
 35 40 45  
 Phe Arg Ile Asn Lys Asn Phe Ser Lys Ala Glu Glu Phe Tyr Xaa Arg  
 50 55 60  
 Gly Val Arg Gly Asn Cys Ile Asp Phe Xaa Leu Leu Xaa Xaa Glu Glu  
 65 70 75 80

4718

Arg Lys Xaa Lys Glu Xaa Ile Lys Xaa Phe Lys Ser  
                     85                    90

&lt;210&gt; 5285

&lt;211&gt; 557

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5285

Arg Ala Cys Ala Leu Val Arg Ser Arg Arg Trp Gly Pro Asn Gln Pro  
   1                    5                    10                    15

Arg Leu Arg Gly Pro Gln Ser Arg Thr Lys Thr Glu Gly Gly Ala Ala  
                     20                    25                    30

Ser Gly Leu Arg Arg Leu His Thr Glu Arg Ala Pro Gly Pro Glu Gly  
                     35                    40                    45

Ala Met Leu Trp Phe Gln Gly Ala Ile Pro Ala Ala Ile Ala Thr Ala  
   50                    55                    60

Lys Arg Ser Gly Ala Val Phe Val Val Phe Val Ala Gly Asp Asp Glu  
   65                    70                    75                    80

Gln Ser Thr Gln Met Ala Ala Ser Trp Glu Asp Asp Lys Val Thr Glu  
                     85                    90                    95

Ala Ser Ser Asn Ser Phe Val Ala Ile Lys Ile Asp Thr Lys Ser Glu  
                     100                    105                    110

Ala Cys Leu Gln Phe Ser Gln Ile Tyr Pro Val Val Cys Val Pro Ser  
                     115                    120                    125

Ser Phe Phe Ile Gly Asp Ser Gly Ile Pro Leu Glu Val Ile Ala Gly  
   130                    135                    140

Ser Val Ser Ala Asp Glu Leu Val Thr Arg Ile His Lys Val Arg Gln  
   145                    150                    155                    160

Met His Leu Leu Lys Ser Glu Thr Ser Val Ala Asn Gly Ser Gln Ser  
                     165                    170                    175

Glu Ser Ser Val Ser Thr Pro Ser Ala Ser Phe Glu Pro Asn Asn Thr  
                     180                    185                    190

Cys Glu Asn Ser Gln Ser Arg Asn Ala Glu Leu Cys Glu Ile Pro Pro  
                     195                    200                    205